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Et quoniam variant morbi, variabimus artes;
Mille mali species, mille saluti erunt.

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For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty, in Europe and America, were under deeper obligations than to the *Medical and Physical Journal of London*, now forming a long but an invaluable series.—*Rush.*

ORIGINAL PAPERS, AND CASES,

OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER AUTHENTIC SOURCES.

CHRONIC OPHTHALMIA.

On the Proximate Causes of Chronic Ophthalmia.

By William John Thomas, M.R.C.S.

There is a species of indolent inflammation of the cornea, which we frequently meet with in practice, of a very stubborn and intractable nature, occasioning severe suffering to the patient, and frequently much embarrassment to the practitioner. I desire to offer a few remarks upon this disease: I am induced to do so from having lately met with several cases of this description, which yielded within a moderate time to the exhibition of appropriate remedies.

Inflammations of the eye, of an acute nature, generally arise from those causes which induce similar affections in other organs; but there are specific agents to which, from its exposed situation, the eye is more peculiarly obnoxious: to enumerate these would occasion unnecessary prolixity in the present communication, which I intend to render as brief and concise as the nature of the subject will admit. The form of inflammation which I am now considering may be materially modified in its manifestations by the idiosyncrasy of the individual. I lately had a person under my care who had chronic inflammation of the cornea, of several years' duration, and whose prevailing diathesis appeared to be the rheumatic: the affection was considerably alleviated by the administration of colchicum, combined with calomel and opium; the local disease subsiding under the alteration of the constitutional action. In the suppression of local affections, too much attention can scarcely be paid to the state of the constitution. I am persuaded, however, that, in many diseases of particular organs, and more especially of the eye, the irritative sympathy of contiguity will be found to influence materially the progress of the morbid phenomena; and, although a remote or sympathetic irritant may have called the primary disease into action, yet the consecutive changes in the phenomena thus produced will vary with the intensity of action and proximity of the local irritation.

In the course of this paper, I shall have occasion to advert to some particular examples of this nature, and shall for the present proceed to consider the succession of morbid phenomena which is exhibited during the progress of this disease. The primary symptoms are either of an acute or subacute nature: in the scrofulous diathesis, the latter generally prevails. If the acute form exist, the symptoms are, of course, of a more aggravated nature; the congestion of the sanguiferous vessels more conspicuous, and the epiphora and intolerance of light more troublesome. After these symptoms have existed for an indefinite period, the state of chronic inflammation becomes permanently established, and the nature of the exciting cause will be found to have changed, as the phenomena exhibited in the chronic cases are varying from those of the acute. The primary proximate causes of the acute inflammation may be either idiopathic or sympathetic irritation. This irritation first excites the diseased action, and subsequently accelerates it, accompanying the inflammatory action to the complete destruction of the diseased organ.

When the inflammation is of the passive kind, the capillary congestion in many cases proves an exciting cause to the morbid action of the congested vessels. The physical distention is a stimulus to the arterial tubes, and one of the sources of the prolonged irritability of the eye. It is curious to trace the chain of these phenomena, of the varying operations of the causes and effects, and of the several morbid changes resulting from their combined actions. Let us consider the dilatation of the arterial calibers of the more superficial vessels, the sympathetic irritation which it necessarily excites, and the preternatural actions dependent upon that irritation. The transparent vessels, when distended with red blood, become considerably congested; they occupy certain spaces which were appropriated to the reception of other vessels, and the reticulated cellular tissue is lacerated in consequence of their displacement. Upon the first admission of arterial blood in larger quantities into these vessels, the irritability of their parietes is necessarily augmented. The physical distention of the containing organs is the next phenomenon resulting from the increased momentum of the scarlet stream. When the arterial tubes are first excited to action, the power of resistance may be nearly equivalent to the momentum of impression. The successive waves of blood, acted upon by the *vis à tergo* and by the specific action excited in the radical branches by the stimulus of congestion, augment the impelling powers. This may be called the active inflammatory stage. At this period, the pain is acute and pungent; the secretions are hot and acrid; the tears more especially offending the irritable organ, and excoriating the adjacent parts. These symptoms continue for an indefinite time; their nature changes as the phenomena vary from the acute stage: the irritability of the organ begins to subside.

The cause of this effect is worthy of consideration. We have before observed that, at the first invasion of the disease, the additional quantity of blood proves a stimulus to the substance of the arterial tubes. This stimulus is that specific principle of irritability resident in the blood: whether this be a chemical or a galvanic agent, it is not necessary in this place to inquire. It may be expedient, however, to observe that this principle of irritability is attracted by the parietes of the living arteries, and communicates, by its specific stimulus, the susceptibility which they possess. The ingress of the blood is rapid, but its egress from the tube by no means equivalent to the primary invasion.

A physical distention of the organ necessarily ensues; the blood, being detained in its transit, imparts to the beating artery a much greater portion of its specific stimulus than is consistent with its own vitality. This life-imparting fluid dies, in the very act of furnishing to the excited organ the final minimum of its principle of irritability. Having expended this, it becomes chemically decomposed, and the fibrine, adhering to the internal parietes, intercepts for a time the acquisition of the vital stimulus by the walls of the artery, from the current of blood which now passes with little impediment through the tube. The resistance of irritability being thus overcome in the vessel, the power of elasticity subsides also, and the only obstruction offered to the laceration of the tube exists in the mechanical power of resistance, resident in the substantial density of the arterial walls. The contracting principle of reaction having withdrawn from the vessels, the physical distention may be completely established, and the tonic powers of the artery permanently withdrawn: that portion of the tube primarily affected, as well as the capillary apertion which terminates its ramification, will become paralytic.

The fibrine will now be urged slowly through the barriers of coagulating lymph into the reticulated texture of the cellular tissue; whilst nature, opposed in her first endeavours to impede the destructive progress of the disease, fortifies, with fibrinous laminæ, the walls of the artery above, and blockades the capillary termination of the tube with a cone of coagulated lymph. Thus terminates the active stage of the inflammation.

The fibrine effused into the cellular tissue, and between the laminæ of the cornea, retains its primary aspect until condensed and consolidated into complete opacity, by the absorption of its fluid parts. If no proximate exciting cause have arisen, the action of the organic trains subsides into quiescent tranquillity. The only traces of the acute inflammation are opacities and ulcerations of the cornea. The former may, by the judicious administration of scientific remedies, be ultimately removed; and the latter, by appropriate applications, be in a great measure restored to their primary convexity.

It frequently happens that the phenomena of inflammation, especially in the severely acute species from local injury, subside very tardily, or not at all: we may then suspect that some local and exciting cause has supervened on the original injury. I believe it will be found that, the more intense the degree of the superficial irritation, the more likely the chronic stage will be to follow in succession.

The conjunctiva is the external covering of the eye; the same tunic covers the ball and the interior of the palpebræ. These, therefore, will frequently be found to react upon each other, and to sympathise in their respective inflammations. There are three states in which the palpebræ are frequently found: the first that of simple arterial vascularity. In this stage of inflammation the pain is trifling, and the symptoms are comparatively mild. The appearance of the disease may be compared to a patchwork of scarlet velvet on a strawcoloured ground of a smoother quality. It is seldom that a solitary insulated portion is perceptible; for several of these distinct figures of vascularity may be seen on the first inversion of the lids, immediately before the stimulus of the mechanical displacement causes the blood to fill the minute vessels of the membrane, producing, as a necessary consequence, the temporary congestion of the tunic of the ciliary cartilage.

These insulated portions of arterial vascularity are then the first stage of that peculiar series of phenomena which introduces the proximate and exciting causes of chronic ophthalmia. The activity of the inflammation in these insulated portions will be observed to be accompanied with deposits of fibrine; detached fragments of which frequently float towards the internal canthus. These foreign agents increase the inflammatory action, and portions of this coagulating lymph attached to the inflamed patches become successively organized. The organization of these fibrinous bodies has something peculiar in its arrangement. False membranes are not detected, as in the inflammations of the peritoneum, &c.; but the newly-formed vessels, instead of ramifying over the extended surface of the fibrine, instinctively tend towards each other, and, by their own elective affinities, condense the inflammatory process within a circumscribed capacity. The lymph having now become vascular, assumes an organic appearance: the organization of this substance exhibits an uneven aspect, with alternate elevations and depressions. The depressions, in the progress of the disease, are rapidly excavated, and the original elevations being increased by the intense vascularity of the accuminated processes of these newly-formed tubercles, the whole of the conjunctiva originally affected is transformed into a series of granulating patches. These detached portions subsequently coalesce, the circumferences of their basements uniting in every direction, and forming new centres of preternatural actions, accelerating the progress of this destructive disease. During this stage, ulcerations of the cornea proceed with rapidity, from the acuminated papillæ of the granulating surfaces stimulating the cornea to destructive inflammation.

In the third and last stage, the granulations assume a fungoid appearance; they are no longer granulated tubercles, but appear like vast carneous masses interspersed with deep and penetrating clefts. The fungoid tumors are not rounded off, but form angular projections. Frequently we perceive a number of these masses crowded together; they appear, indeed, as one solid mass, on a superficial inspection, but upon minutely examining them, especially by separating them with a probe, we detect the real nature of their constitution. They may be compared to lobes, with flat surfaces opposed to each other; processes of a delicate membrane, apparently of a serous nature, covering their opposing surfaces, and secreting a fine transparent fluid, avert that friction of their several aspects which might lead to an adhesive and consolidating inflammation between their surfaces.

A person lately put himself under my care with fungoid excrescences of the conjunctiva: he is blind; the cornea of both eyes are opaque, in part from solid interstitial deposits, of a circumscribed nature, and partly from effused lymph of a more superficial character. The disease has existed twelve months. The apparently central deposits, I strongly suspect, are preceded by interstitial absorption, or inflammatory ulceration. It is somewhat difficult to conceive, considering the extreme density of the texture connecting and consolidating the laminæ of the adult cornea, in which way these albuminous patches have primarily originated. If we consider them as simple fibrinous effusions, what a force must have projected the lymph so as to deposit it in the condensed connexions of the corneal laminæ! If, however, the interstitial absorption precedes the deposit, we can readily perceive how the effused lymph may occupy the space excavated by the hand of nature for its reception. In this light these opaque deposits may be esteemed the results of a salutary process of nature, to unload the adjacent vessels, and to relieve the patient from the intolerable pain produced by the congested vessels, tearing asunder the condensed laminæ of the transparent cornea. These opaque spots which occupy the central departments of the cornea are therefore the results of the inflammatory action of vessels pervading the interior tunics of the laminated transparency. In the natural state, these vessels are diaphanous, and carry a pellucid fluid, eliminated from the blood: they are principally prolongations of the superficial vessels, partaking of their peculiar character. If we review the progress of this disease in its different stages, we perceive the preternatural formations causing the greatest inconvenience. Towards the third stage, however, the cornea, in the majority of cases which have come under my observation, appears insensible to the stimulus of the fungoid excrescences, being itself completely opaque, and partially disorganized.

Having thus endeavoured to point out a fertile source of embarrassment to those practitioners who are not aware of the frequency of its occurrence, I must express my belief of the high improbability of the successful treatment of chronic ophthalmia, if these exciting causes are overlooked.

When the disease has not produced disorganization of the cornea, the interference of the art of surgery may suspend its progress, and avert that unhappy termination. The proximate exciting cause must be first removed, and the subsequent treatment directed to the effects which have already resulted from the specific irritant. By perseverance in the practice of these principles, we may frequently restore the despairing patient to the inestimable blessings of the light of heaven, to his own great comfort and satisfaction, to the public credit and benefit of the successful practitioner, and to the permanent honour of the art of surgery.

Liverpool; June 2d, 1830.

PUERPERAL FEVERS.

Observations on the Puerperal Fevers which occurred at the Maternité of Paris in 1829*; on the various Modes of Treatment employed, and particularly on Mercurials, Emetics, and Bloodletting.* By M. Tonnellé.

M. Tonnellé has had so much experience upon the very important subject of puerperal fevers, and he delivers his opinions with so entire a freedom from partiality to any preconceived opinion of the pathology of the disease, and of the treatment it requires, that we are sure we shall confer a benefit upon our readers by giving them an abstract from the *Archives** of the excellent essays he has published. It will be seen that M. T. corroborates the opinions which have been lately published by Dr. Lee and other English practitioners, who have endeavoured to arrive at correct notions of the pathology of puerperal fever.

The points to which our attention is directed are, 1st, the organic alterations which are detected in puerperal fever; 2d, a history of the symptoms; 3d, a description of the treatment. Before these subjects are discussed, some general reflections are made upon the causes of the disease.

The puerperal fevers observed at the Maternité in 1829 were more frequent and severe than had ever been known since the foundation of the institution. The disease frequently occurred in an epidemic form, particularly in January, May, August, September, and October; and during these months it raged with great violence. It might, at first, be supposed that the developement of the disease depended upon the cold and moist weather which reigned throughout the year; but, as a proof that the disease did not entirely depend upon these causes, it is stated that, during the keen dry coldness of January, puerperal fevers were very frequent; but, on the other hand, in December, when the weather appeared to be precisely the same, but very few cases occurred. The influence of moist weather is equally doubtful: for, although these fevers happened frequently during the summer, which was cold and rainy, they were very rare at certain intervals, during which the conditions of the atmosphere remained the same, and very common during the long and remarkable dryness of the spring. The vitiated state of the air in hospitals, and those moral affections which are usually considered to play so important a part in the production of puerperal fevers, cannot fairly be admitted as causes: they act in a uniform and constant manner. The disease, on the contrary, usually occurred very irregularly, raging during a week or a month, then suddenly disappearing, and again becoming frequent. Much has been said by authors of the influence of peculiarity of constitution, previous diseases, and the duration and difficulties of labour; but it must be evident that either of these causes can only refer to individual cases of the disease, and that they cannot in any manner explain the simultaneous occurrence of a great number of cases.* There was no reason whatever to believe that the disease spread by contagion. It often happened that patients were attacked with puerperal fever directly after delivery, although they were in insulated wards, and had no communication with the other women. M. Tonnellé would, therefore, refer the origin of the disease to some more general and moveable cause, to some secret influence of the atmosphere, which, although impenetrable to our senses, is no less certain.

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* Mars 1830.

Of the morbid appearances. Inflammation of the peritoneum was the most frequent alteration that was observed after puerperal fevers; but it is erroneous to suppose that it always exists. Sometimes this membrane was of a perfectly natural appearance, and the most minute investigation failed to detect any appreciable marks of disease; and it was particularly in the most severe and rapidly fatal cases that this integrity of the peritoneum was remarked. In these instances there mostly existed some alteration of the womb, or of its vessels, or the parts connected with it.

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* It was not uncommon to see ten or twelve women attacked during a day or night with puerperal fever.

The anatomical character of the peritoneal inflammation was not always the same. Sometimes no fluid was effused into the abdominal cavity, but upon the surface of the intestines there was a deep blush of red colour, and a delicate white membrane formed, producing adhesion between the different parts. Most frequently a certain quantity of fluid was found in the abdomen, mingled with shreds of albumen and false membrane, of a yellowish colour. In some instances pure pus was seen. The inflammation of the peritoneum was mostly confined to the hypogastric region, and around the uterus; and when it was more extended, it was still more intense in these parts. In a few rare examples, particular parts of the peritoneal membrane were affected, as upon the surface of the liver, the mesentery, and omentum. When the last part was inflamed, it was thickened and hardened so much that it could be felt during life through the parietes of the abdomen. The false membranes that were found were sometimes of a brown colour, which for a long time was supposed to indicate a gangrenous state. The recent improvements in pathological anatomy have shown this opinion to be erroneous, and it would have been unnecessary to mention the circumstance, if the same mistake had not lately been fallen into by some writers on peritonitis.

The *morbid appearances of the uterus* may be classed under three principal heads: 1st, simple inflammation of the uterus, and the parts connected with it; 2d, suppuration of the veins and lymphatics; 3d, a softened or putrescent state. The internal surface of the uterus was generally covered with a putrescent secretion, of a reddish brown colour, the fetor of which was often almost insupportable. There were also frequently found upon the internal surface of the uterus a number of small greyish granulations, presenting an aphthous appearance. In other cases there was a layer of thick yellow pus lining the whole or a part of the uterus. Upon the peritoneal covering of the uterus were often seen small irregular vesicles, formed by the effusion of a sero-purulent fluid, or true pus, beneath the membrane. When these vesicles were ruptured, the surface of the uterus was partly deprived of its external tunic, as the skin is of the epidermis after the application of a blister. An altered condition of the proper tissue of the uterus was rare, with the exception of a softened or putrescent state. But if, in dissection, the parts were not very carefully examined, the collections of matter, which really existed in the veins or lymphatics, were easily mistaken for small abscesses in the substance of the uterus itself. In the substance of the broad ligaments of the uterus pus was often found, and also in the fallopian tubes. The ovaria were either injected with blood or contained serum, accompanied by tumefaction and a softened state of structure. Sometimes there was a general purulent infiltration of these organs, with great enlargement and remarkable friability of their tissue. In most cases the pus was disseminated throughout the ovaria, but in a few instances it was confined to one part. In a woman who died at an advanced period of the disease, an abscess of the ovarium communicated with the rectum by ulceration. In another instance a similar abscess had ruptured in the cavity of the peritoneum. The ovaria often contract adhesions with the abdominal parietes, and the pus they may contain is then spontaneously discharged externally. Ruisch, Delamotte, and Desormeaux have related such cases.

Of suppuration of the veins and lymphatics of the uterus. M. Dance first pointed out inflammation of the uterine veins, and the serious consequences which hence arise in cases of puerperal fever, in a memoir in the Archives générales: but M. D. had only the opportunity of collecting a few scattered cases. M. Tonnellé is not aware that suppuration of the lymphatics has been either observed or described before. He considers this morbid state as important as that of phlebitic inflammation, since the symptoms and serious consequences of both are similar. Suppuration of the veins and lymphatics of the uterus is so frequent, that it was met with in nearly three out of five cases of puerperal fever which occurred. It is, in fact, almost as constant as peritonitis. Sometimes it existed alone, but more frequently it was combined with some of the preceding morbid alterations. In most instances the vessels of the uterus were alone affected, but occasionally the adjacent veins of the thoracic duct were implicated. In some examples pus was contained in a few vessels only, but in most all the vessels were filled, so that no portion of the uterus could be divided without seeing the fluid pour out in the form of numerous small drops from the orifices of the vessels. It was principally on the lateral parts of the uterus, and near the origin of the broad ligaments, where there are numerous veins and lymphatics, that this morbid state was detected. It was rare near the insertion of the placenta, where M. Dance, however, appears most frequently to have observed it. The lymphatic vessels, in a state of suppuration, are easily distinguished from the veins by their superficial position on the sides of the uterus, and upon the surface of the broad ligaments; by the tenuity of their coats, and by the whitish, milky appearance which they give to the membrane covering them; and also by their proximity to the large veins, their tortuosities, and remarkable enlargements which they present at various distances. These enlarged portions of the lymphatics sometimes formed small pouches, filled with cream-like pus, and large enough to admit a cherry-stone, or even a kidney-bean. Great attention is required to distinguish these appearances of the lymphatics from abscesses of the proper substance of the uterus. The internal membrane of the lymphatics was occasionally thickened and irregular, but it usually preserved the natural polish, and was altered only in colour, which was of a yellowish hue. M. Tonnellé is not, however, prepared to admit that the pus is not secreted by the internal membrane of the lymphatics; for their pellucid membranes present very few appreciable alterations in the best-marked states of inflammation. In ordinary phlebitis, the morbid appearances are found almost exclusively upon the external membrane, which is of a cellular structure, and which becomes so swollen and thickened as to give to the veins the appearance of arteries. When this membrane does not exist, or is not perfectly formed, as in the parenchymatous substance of organs and in the venous sinuses of the cranium, inflammation leaves less well-marked traces. There is no reason why the lymphatics should not be as susceptible of inflammation as the veins. We find in the former vessels all the conditions which appear to favor the developement of inflammatory action in the latter: a great augmentation of their capacity; an increase of their vital power; various contusions during the act of labour; an immediate contact with the decomposed matter which covers the internal surface of the uterus; absorption of puriform, acrid, and fetid secretions, &c.

Suppuration* of the veins and lymphatics of the uterus were usually accompanied by a certain number of symptoms, which, as M. Dance has well observed, are peculiar to that kind of affection. The presence of pus in these vessels, and its consequent transmission into the general circulation, rapidly produced an evident and palpable infection of the whole mass of blood, and hence arose a certain group of the most serious symptoms, which gave to the puerperal fever a special and characteristic form. The following cases, taken from many others, are adduced to prove this fact.

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* M. Tonnellé does not wish that the term "suppuration," as here applied, should be taken as implying more than the simple fact of pus being contained in the vessels, without prejudging the origin of it. The practical facts which he subsequently relates will, he thinks, settle the question of where the matter is formed.

Case I. Victor Ano, æt. twenty-two, of a good constitution, had a favorable delivery at the Maternité, in the beginning of July. Four days after her labour, she complained of shivering and pains in the hypogastrium, which were immediately opposed by the application of fifty leeches. Next day, the belly was swollen and extremely tender; face flushed; pulse hard, quick, and full; lochia suppressed; no milk. Leeches were again applied, and an oily mixture and a hip bath ordered. The third day from the attack, a decided change occurred: Profound prostration; face pale and drawn; eyes half closed; tongue dry; pulse small, quick, and irregular; the patient articulated with difficulty; occasional shiverings; involuntary discharge of feces. In the evening, delirium. Fourth day, the body was covered with a clammy sweat; extremities cold; and the woman soon sank, and died.

Mercurial frictions with three ounces of the ointment each day, and calomel with hyoscyamus, were prescribed by M. Desormeaux during the latter period of the disease.

Dissection, twenty-four hours post mortem. Internal surface of the uterus covered with putrid and fetid matter, but it did not appear to be altered in structure. Upon dividing the body of the uterus, the open orifices of several sinuses were seen, full of yellow and well-formed pus, which flowed out abundantly from all parts upon the slightest pressure. These sinuses opened both on the right and left side, towards the origin of the ligamenta lata, where a numerous collection of veins and lymphatics were seen filled with the same fluid; but at this point the alteration abruptly terminated. The hypogastric and ovarian veins were full of brown fluid blood, but in them there was no vestige of pus. At the inferior part of the peritoneal cavity there were a little sero-purulent fluid, and some false membranes. The other organs were healthy.

In this case, as in all the other similar examples, two distinct orders of symptoms occurred: the one peculiar to inflammation of the veins of the uterus, or of the uterus itself; the other, on the contrary, of a very different nature, and indicating an absorption of pus and infection of the general constitution. The practical utility of this distinction must be obvious: for, if antiphlogistic means should be employed with energy during the first period, the second requires a very different plan of treatment. If we study the cases of *putrid* puerperal fever left us by ancient writers, we should find in them the most striking analogy with the symptoms of internal phlebitis, as observed in the present day, so that we cannot doubt that the disease formerly described owed its character of *putridity* to the absorption of pus, as is now found to be the case. "In putrid puerperal fevers," says Leake, "the belly rapidly swells, the countenance of the patient alters, the tongue is dry, hands tremble, lips livid, nostrils dilated, the cheeks are often of a deep red colour, the patients sink into a state of prostration, the pulse becomes excessively rapid, and lastly tremulous." These are the characters which we daily witness as the accompaniments of the second stage of uterine phlebitis. Leake, indeed, who did not admit the idea of a metastasis of milk, which was then generally adopted, suspected the real origin of the symptoms. In his opinion, puerperal fever was primarily the result of inflammation, and if in the latter stages it assumed a putrid form, it was from the absorption of various purulent fluids secreted in the abdomen, which fluids, by mingling with the general mass of blood, excited a putrid fermentation. Whether these ideas arose from practical observation or hypothetical speculation, may be doubted; but they are remarkable for the period in which they were promulgated. If we compare the preceding case with others observed by Dance, we perceive that phlebitis runs a very rapid course; but in some instances the disease is still more quickly formed, and appears almost instantaneously, and at once destroys life.

Case II. *Puerperal Fever, with Uterine Phlebitis, rapidly fatal.*

Marie Cons, æt. twenty-eight, of a good constitution, was delivered, after a favorable labour, at the Maternité, on the evening of December 26th.

27th.—Well in the morning. Evening: some wandering pains in the abdomen.

28th.—Pains more severe in the morning. Lochia suppressed entirely; they had previously been abundant. Face pale and anxious; tongue dry; pulse small, hard, and quick.—Fifty leeches were applied to the hypogastrium; hip bath. Blood flowed freely from the leech bites, but the pains were not relieved. During the day, the patient was extremely anxious and agitated. In the evening she became delirious, and fell into a profound stupor. The skin was soon covered with clammy perspiration; extremities became cold, and death happened about twenty hours from the invasion of the disease.

Dissection. Uterus not contracted, and filling nearly the whole of the pelvis; its internal surface covered with a brown and very fetid matter. The cervix uteri, ligamenta lata, and subperitoneal cellular tissue, were infiltrated with a large quantity of well-constituted pus. Most of the veins and lymphatics were filled with the same fluid, and it flowed from them in a multitude of large drops, wherever an incision was made. Fallopian tubes swollen and very red. Ovaria softened. Lymphatic glands of the pelvis and loins much enlarged. Peritoneum and other parts healthy.

The enormous quantity of pus contained in the uterine vessels, and the inevitable absorption of it, satisfactorily accounted for the severity of the symptoms, and the rapid destruction of the patient. But how can we explain the singular rapidity with which the pus must have been formed? In the most acute external inflammations, suppuration is not established for many days. In the above case, on the contrary, hardly twenty hours elapsed from the invasion of the disease, and already was the uterus filled with pus. This terrible rapidity in the march of puerperal fever is rarely observed in sporadic affections. It is seen, almost exclusively, in the course of various epidemics, and we must therefore seek for the cause, not in idiosyncrasy, or individual predisposition, but in the character of the epidemic which stamps upon the disease a peculiar form, modifies the morbid alteration of parts, renders a different plan of treatment necessary, hastens or procrastinates the duration of the disease, and augments or diminishes its danger, according to certain conditions which we are unable perfectly to explain. Accustomed as we are at the present time to regard diseases as insulated and unconnected occurrences, and scarcely ever in their mutual connexion, and but little in the habit of observing epidemic maladies, which the progress of civilization happily renders every day less frequent, we are unwilling to admit the influence of general causes which are not evident to the senses: but, unless we do so, how can we ever comprehend epidemic diseases? In a particular year, or month, the progress of puerperal fevers is marked by wonderful rapidity. At another period the same disease runs a slow and progressive course. At one time the symptoms are mild, at another dreadfully severe.

In one epidemic, particular morbid alterations are observed; in another, certain plans of treatment are unusually successful. How can we explain these various general facts, without admitting the existence of a general cause which predominates over individual peculiarities? M. Tonnellé allows that these ideas are not yet sufficiently supported; but he hopes, in the course of his essays, to develope them satisfactorily, and to prove that they are well founded.

CASE III. *Puerpèral Fever, with Pus in the Lymphatics of the Uterus and in the Thoracic Duct. Considerable Tumefaction and Softening of the Lymphatic Glands of the Groin and Lumbar Region.*

— Lor, æt. thirty-one, of good constitution, entered the Maternité the 1st of July, 1829, and was delivered of her first child the 25th of August. On the day of her confinement, she had repeated shiverings, pain in the hypogastric and lumbar regions, and intense fever. M. Desormeaux ordered her to be bled copiously, and fifty leeches to be applied to the abdomen.

The second day, the pains were excessive, lochia suppressed, nausea, redness of the face, and fever.—Venesection and leeches repeated.

Third day, countenance anxious, alternate agitation and depression, delirium, tympanitic state of the belly, incontinence of urine and feces, small and irregular pulse. Died in the evening.

Dissection. A quantity of pus was infiltrated between the laminæ of the ligamenta lata of the uterus. The lymphatics, which were filled with the same liquid, formed upon the edges of the broad ligaments, and upon the sides of the uterus, large, white, tortuous, superficial cords, with very thin coverings. These vessels were swollen at different points, and surrounded the large venous trunks, which were entirely empty. The glands in the groin and lumbar region were as large as pigeons' eggs, and on the anterior part of the spinal column they formed voluminous masses; their tissue had a greyish appearance, and it was infiltrated with pus, and easily broke under the finger. The thoracic duct, of the size of a swanquill, was filled with thick yellow fluid, resembling pus. In the cavity of the abdomen was about half a pint of floculent serum. All the other parts were healthy.

CASE IV. *Suppuration of the Lymphatics of the Uterus and of the Thoracic Duct.*

Sophie G., æt. twenty-one, of good constitution, was admitted October 28th, 1829, in the eighth month of her pregnancy. The inferior extremities were œdematous.

Nov. 7th.—Shivering, vomiting, and headach.

8th.—Patient was attacked with convulsions, which continued in frequent paroxysms for two days. She then became profoundly comatose. These symptoms were subdued by vigorous treatment. Strong labour pains came on, and she was delivered of a living child, without any untoward occurrence. Until the next day, she went on well: she was then attacked with pains in the hypogastrium, and had some shivering. Fifty leeches were applied to the abdomen.

Third day, the lochial discharge ceased; violent pains in the abdomen; vomiting; high fever. Leeches repeated.

Fourth day, delirium; constant state of agitation; impeded articulation. These symptoms were followed by great depression, and in the evening the patient sunk, and died.

Mercurial frictions in large doses, and blisters to the legs, were the means principally employed during the last two days.

Dissection. Internal surface of the uterus of a brown colour, and superficially softened. Cellular tissue connecting the peritoneum to the body of the uterus, and the ligamenta lata, were infiltrated with pus. Most of the lymphatics were filled with the same fluid, and formed, as in the preceding case, large knotty superficial trunks. This appearance was not confined to the lymphatics of the uterus, but extended to most of those vessels in the abdomen which were swollen and of a milky colour. The thoracic duct was greatly dilated, and filled with pus. There was a large quantity of sero-purulent fluid in the abdomen. Left ventricle of the heart slightly hypertrophied. Other parts healthy.

Many other cases similar to these were seen, but they were so analogous as to render a detail of them unnecessary. Was the pus formed primarily in the vessels, or was it carried into them by absorption? Both opinions may be supported; for, on the one hand, pus was found in the cellular tissue, and particularly in the substance of the ligamenta lata, and therefore the lymphatics might have obtained from these parts the matter which they contained.

But, on the other hand, there was no kind of proportion between the liquid infiltrated in the uterus and that which filled the blood-vessels; besides which, the lymphatic glands presented various marks of inflammatory action.* The question, however, is not so important as might be imagined. The danger arises from the presence of a certain quantity of pus in the vessels, from whence it is transported to various other parts; and whether the pus is carried into the vessels by absorption, or is formed in them spontaneously, the effects are precisely the same. In the previous cases, the phlebitic inflammation was confined to the uterus; but it frequently extends beyond that organ, and affects the adjacent veins. Sometimes it attacks the latter alone, the uterine veins remaining healthy to all appearance; which is shown by

CASE V. *Puerperal Fever, with Inflammation of the Hypogastric, Crural, and Iliac Veins.*

Marie Mart..., æt. twenty-eight, of healthy constitution, was attacked, on the third day after a favorable labour, with symptoms of severe puerperal fever. By very abundant local bleeding, the disease was quickly checked, and appeared to yield entirely on the eighth day; but there soon followed headach, singing in the ears, great agitation and depression, and occasionally delirium.

On the thirteenth day, the patient had shiverings and pains in the abdomen, which had for some time entirely disappeared. Two ounces of mercurial ointment were rubbed in each day. She was again relieved, and appeared nearly convalescent. She had some appetite; but still each day there was a slight febrile attack, and she continued getting thinner.

22d.—Inferior extremities very œdematous.

29th.—Pains in the abdomen, vomiting, and high fever.

31st.—Extreme prostration. Death.

Dissection. Peritoneum lined with false membrane, by which the intestines adhered firmly together. Abdominal cavity filled with pus. Uterus perfectly contracted, and of healthy appearance. The hypogastric veins much dilated, and filled with a quantity of thick greyish pus. The crural veins, the iliac, and a part of the inferior cava, contained a dense coagulum, in the centre of which was a certain quantity of pus. The circulation must here have been completely obstructed. The parietes of all these vessels were much thickened, unequal, and rough. The upper part of the inferior cava, which was unaltered in its appearance, was quite empty, white, and remarkably contracted. The other organs were natural.

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* In the cases published by Dr. LEE, in the Med.-Chir. Transactions, the appearances of inflammation in the veins were too strongly marked to admit of doubt. Dr. Lee recently assisted us in the post-mortem examination of a patient who died of puerperal fever, and whose symptoms very closely resembled those described by M. Tonnellé. The uterine and spermatic veins were filled with pus, but there were no appreciable signs of inflammation in the structure of the vessels.—EDITOR.

In this case we see phlebitis occupying the large venous trunks adjoining the uterus, without any trace of disease in this organ itself. It must, therefore, be admitted that inflammatory action may originate in those vessels, unless we suppose that it had terminated by resolution in the uterine veins, and continued in the other. This would be entirely a gratuitous hypothesis, and would not admit of defence. Phlebitis appeared to develope itself from the commencement of this long disease. The general symptoms which arose on the ninth day, as the singing in the ears, extreme agitation, prostration, and delirium, strongly indicated it; but, notwithstanding the extent of the inflamed surfaces, these symptoms of purulent infection were not so severe as in the former instances. At a first view, this fact may seem inexplicable; but, if we reflect upon the case, the reason will be obvious. A certain quantity of pus was first carried into the torrent of the circulation, but soon the coagulum, which formed in the crural, iliac, and cava veins, by obstructing the circulation, circumscribed and as it were imprisoned the pus, and consequently opposed the production of those severe symptoms which would otherwise have arisen from absorption. The œdematous swelling of the inferior extremities, the adherence and solidity of the coagulum which filled the vessels in question, and, lastly, the emptiness and contracted state of the inferior cava, leave no doubt as to the circulation having been interrupted.

In the preceding cases, we have seen absorption of pus, the consequence of inflammation of the uterine vessels, produce the most severe symptoms, and destroy the patient in the midst of a general derangement of the functions, without any appreciable lesion of the tissue of the organs: but it often happens that the morbid condition of the fluids reacts upon the solids, and inflicts upon them very serious lesions; of which the following case is an example.

CASE VI. *Puerperal Fever, with Uterine Phlebitis; Perforation of the Stomach; Softening of most of the Organs.*

E. Porch..., æt. twenty-five, of healthy constitution, was delivered, after a good labour, at the Maternité, July 20th, 1829. On the third day from her confinement, she had shiverings and severe pains in the abdomen. Forty leeches applied to the hypogastrium.

Fourth.—High fever; frequent vomiting; belly swelled and very tender; breathing hurried;* pulse hard and quick; prostration and stupor were depicted in her countenance. Leeches again applied.

Fifth.—Delirium; frequent vomiting. Patient obstinately refused to drink. Mercurial frictions were now employed, two ounces of the ointment being used daily.

Sixth.—Constant delirium; countenance much altered; pulse small and frequent. She soon became comatose, and died; preserving to the last an invincible repugnance to take any fluid.

Dissection. In the abdomen a small quantity of sero-purulent fluid. The uterus was imperfectly contracted, and occupied nearly the whole pelvic cavity. The uterine veins were filled with thick yellow pus, which flowed from almost every part of the organ, but more freely from the lateral portions. Towards the fundus uteri, several large lymphatics were seen, also filled with pus: these vessels extended into the substance of the ligamenta lata, and ascended, with the ovarial veins, into the abdomen. The great curvature of the stomach was pierced by three holes, each of about the size of a dollar. The edges of these openings were irregular, fringed, and very soft, and of a very deep brown colour, which extended to a certain distance from the perforations, disappeared insensibly, and again appeared in other parts of the stomach. Some soft adhesions, of recent formation, united these openings to the spleen and diaphragm. The lungs were turgid with blood, and partially covered with circumscribed nodosities, resembling certain hemoptoic engorgements. The brain, heart, liver, and most of the viscera, were soft and flaccid, and presented a singular contrast with the well-developed and richly coloured muscular system.

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* We remember a case of puerperal fever, which happened in the early days of our practice, in which the late Dr. GOOCH was consulted. The breathing was rapid, and Dr. G. remarked to us that he never knew a patient recover from the disease when this symptom was present: our subsequent experience corroborates the opinion.—EDITOR.

The morbid condition of the blood, from the entrance of a large quantity of pus into the circulation, did not produce in this patient those general symptoms alone which were observed in the previous cases, but it affected various organs of the body in a decided manner. How, in fact, can the disorganization of the stomach, the circumscribed engorgements of the lungs, and the softened state of all the organs, be explained, unless by some cause, the deleterious influence of which acted upon the whole economy. We may surely conclude, without infringing the limits of rigorous and legitimate induction, that this general cause was the purulent infection that was traced upon examination. Disorganization and perforation of the stomach is often found upon dissection; but the symptoms observed during life, the black colour of the neighbouring parts, the softened state of all the other organs, and, lastly, the adhesions which had begun to form around the perforations, exclude the idea that this was one of the ordinary cases. This softened state of the most dissimilar organs is observed especially in those cases where some deleterious cause exercises its mischievous influence upon the whole system; as in pestilential diseases, typhous fever, the poisoned state of the blood produced by the absorption of miasma, or in animals by the injection of putrid matter into the veins. Daily experience corroborates these opinions. With respect to the circumscribed engorgements of the lungs, as the effect of absorption of matter, M. Tonnellé observes that M. Dance has so ably treated this subject, that it is not necessary for him to dwell particularly upon it. For the same reason, M. T. does not enter upon the consideration of the various purulent collections which are found in the lungs and other parts of the body, after pus has entered the veins.

[To be continued.]

ON LEAD.

On the Uses and Properties of some Remedies.

By JOHN GARDNER, Surgeon, &c.

Preliminary Observations. Modus Operandi of Morbid and Remedial Agents.

IN the preliminary remarks to these essays, I have endeavoured to show the necessity that exists for some improvement in the spirit of our investigations, especially for the exercise of minute observation and a more accurate discrimination of the phenomena observed, before we proceed to generalize our knowledge. In the employment of remedies, we are to look for the symptoms indicative of the specific agency of each substance, and, noting accurately their primary and secondary, their essential and accidental effects, endeavour to establish their exact uses and value.

In addition to what I then advanced in favor of a more philosophical method of research than has yet been adopted in therapeutics, I would suggest that the several sciences which constitute medicine have not thrown that light upon each other, which, from the nature of their relation, we should be justified in expecting: for nearly all our most esteemed remedies were introduced into practice by some circumstances independent of scientific research; and many of those which were employed in the infancy of physic have held their ground through all the progress of anatomical and physiological knowledge, and amid every revolution of pathological doctrine. Each school of pathology, however, which has successively flourished, has thought it necessary to explain, in accordance with its own peculiar tenets, the *modus operandi* of remedies, and to invent terms for expressing their supposed modes of action. From this cause, all our treatises on Pharmacy and Therapeutics abound in technicalities and contradictions; and there is no doubt that to the same cause we may justly attribute their palpable errors and deficiency in useful information. But, as a first step in the acquisiton of such knowledge as will be applicable to this as to every practical art, it is essential that we should entertain correct views of the precise objects of inquiry, and that our researches should be conducted according to the strictest rules; then we may be able to apply correctly the discoveries in the collateral sciences for mutual elucidation and illustration. The general assertion, that experience, and experience alone, must be our guide in the employment of remedies, is universally acknowledged to be just; but it by no means follows that what is implied in the word experience, as applied to this science, is understood. It is too often considered synonymous with experiment. Indeed, we think it still necessary to urge that, before any benefit will arise from *experiments* in the art of healing, a foundation must be laid by the acquisition of correct physiological knowledge, an improved system of pathology, and a more minute and comprehensive symptomatology. Then, and not till then, can a superstructure of experimental facts be reared, and therapeutics assume the stability and exactness of other physical sciences. Our discoveries in physiology and pathology are really only useful to us in so far as they are employed to enlighten our path, to direct our inquiries concerning the properties of remedies. The following views of pathology will, it is presumed, accord with these remarks, and illustrate what is to succeed on the properties of lead.

It is only of recent discovery that the seat of the vital principle in the animal economy, the nervous system, is made up of parts having distinct and peculiar functions. These parts, while they are woven into one whole, and appear to derive their powers from their combination, manifest their peculiarities at the point of distribution. Thus we find a separate nerve appropriated to each sensation, to voluntary motion, to the respiratory motion, to every other motion having an especial design (as in some of the muscles of the eye), to digestion, and it is more than probable to each peculiar secretion. Every healthy action has its origin in the nervous system, and it would appear in a part only of that system, a nerve. Now, there can remain no doubt that, whatever impression is made on the system by external agents, or whatever morbid action may arise, the primary seat of that impression, of that action, is some part of the nervous system: and this is equally true whether the agent operating be introduced through the channel of nourishment, immediately into the circulation by a vein, through the skin, or by the lungs in vapour; and it is seldom that the influence of any agent is exerted over the whole system; it is generally confined to some one nerve, evidenced by the disturbance of one separate function; in other words, it is local. This local effect corresponds with our present knowledge of the peculiar endowments of separate nerves. In many instances it is evident enough from its being manifested in a nerve having a function quite peculiar to itself, at other times there is a semblance of general disease, from several nerves with the same function in different parts being affected simultaneously. Although it is not essential to the truth of these remarks that affections of the whole system should not occur immediately from various causes; yet these general diseases are certainly explicable by the known laws of sympathy; the morbid action running in a consecutive series of associated organs, until it is no longer to be ascertained where was the primary disturbance. But, laying aside the consideration of causes for a moment, let us look at diseases as they appear in themselves. In every case of complication in the phenomena we are endeavouring to investigate, it assists us to contemplate the simplest possible in the first instance, and from them to advance to the more complex. Thus, therefore, in pathology, if we look for the simplest cases of disease, they will be found to be,

First, a morbid sensation; the seat of which, no one can dispute, is a nerve. This morbid sensation may vary in degree from one that is scarcely felt, and through every grade increase to a pain amounting to agony, still remaining a simple morbid state, a mere nervous sensation. Such a sensation accompanies, or rather precedes, almost every case of disease: in some instances the vascular changes so rapidly succeed, that we are unable to detect the sequence; in others, it would appear the vessels of the part do not sympathize, as the morbid sensation is not followed by any other changes.

Secondly, there may be a simple deprivation of power in a nerve of sensation, or in a nerve of motion, in short, in any nerve whatever; and a loss of feeling, a loss of motion, or a cessation of function, is its immediate evidence.

Thirdly, an increased power or sensibility to impressions, is also a simple state of disease, and nerves of all kinds are susceptible of it, manifested by increased intensity of feeling, spasm, and other violent actions.

Fourthly, to these we may doubtless add (as consisting of a morbid affection of the nerve,) those cases of depraved secretion, of which nothing more is at present ascertained than the simple fact of the formation of an unusual substance.

Each and all of these several states occur to individual nerves, or to many at the same time in the system, and, by coexisting, form complicated diseases, of sufficient energy to destroy life, and are yet obviously explicable on the supposition of an entire absence of vascular or organic derangement. No such changes can be displayed by the aid of the dissecting knife, and the hypothesis which assumes their existence is only supported by false reasoning on analogy. In the series of actions that constitute other complicated diseases, the first link in the chain is that which deserves the most minute attention in the study of causes: for, as all agents exert a specific influence, and generally on some local organ through the nervous system, this primary phenomenon will characterize the morbific agent. In inflammation, for instance, the train of symptoms marking its origin points unequivocally to the nervous structure of whatever organ it may attack, as the seat of the first impression, the beginning of the disease; and the causes operating in the production of this very frequent state of disease, the nervous symptoms vary, and the whole succession of changes vary also. The study of pathology must be based on a strict investigation of the numerous causes of disease, and their specific and essential effects; then of the laws of the transmission of morbid action from organ to organ, including what is usually termed sympathy, but in a more extended sense: and then of the effects left in the various structures of the body, which constitutes morbid anatomy. It is very questionable whether all the interstitial changes which leave evident derangements of organization, are the result of an identical action, or whether there are not various vascular actions, having no analogy with each other. The prevailing doctrine is, that they are the result of an identical action, and the term inflammation is applied to it. But, from the knowledge physiology supplies of the variously endowed parts of the nervous system, a variety of actions appears most likely; and this probability is increased by a reference to symptoms: for, even among those cases universally considered to be inflammation there are extremes, possessing no single symptom in common.

Taking into consideration the nervous diseases above described, the known specific effect of *some* morbific agent, and the doubtful nature of the evidence supplied by morbid anatomy, it would appear that pathologists are little likely to advance the healing art by attempting to generalize into one single state all diseases whatever: yet this is what our pathologists universally do, some only in effect, whilst others, and those of the greatest repute, distinctly aver that their aim is only the generalization of a fact, namely, that all disease consists essentially in inflammation. They thus utterly set at nought the true principles of the philosophy they profess to follow, which rests all its claims on logical induction from facts furnished by experience. It is altogether impossible to adopt one single principle to explain all the varied elements of knowledge contained in the functions of living bodies and their diseases. Newton, whom these pathologists desire to imitate, discovered the applicability of a general fact, but it was only to the simple *elements*, motion, and its modes, direction and velocity, that the law of gravity is adapted. No single fact can explain the affinities even of inanimate bodies. How much less likely is any one principle to explain all the phenomena of disease! Look at the diversity of the causes capable of disturbing the multifarious functions of the animal economy, their varied nature, material and mental; and if each cause is capable of an invariable effect, how few of these effects have as yet been ascertained? The research for a general fact in pathology will be equally futile with that for the philosopher's stone; and that such should still be followed, is a striking and sufficient proof that in this branch of medicine, (as I have before attempted to show with respect to therapeutics,) a more philosophical spirit, a more correct and systematic logic, is essential to its successful pursuit, and especially to such results as illustrate the *modus operandi* of remedies, and thus advance and systematize the healing art.

2. *Lead.*

There cannot, perhaps, be found a better example of the inefficient and unsatisfactory manner in which the study of remedies has been pursued, than is afforded by the history of lead. This metal, in some form or other, has been employed in the cure of diseases from the earliest ages to the present day, and yet it would be impossible to select one fact concerning its agency on the body in disease, which has been indisputably established. Indeed, an extraordinary prejudice has long prevailed against it, and even at the present day is entertained by a large proportion of medical men. The origin of this prejudice it is by no means difficult to trace; that it should still exist, is not so easily explained. The extensive employment of lead in a great variety of forms in the arts and manufactures necessarily brings often into notice cases of its baneful effects. Metallic lead is employed more than any other metal for uses that bring it into contact with almost every article of food and drink, in situations highly favorable to its oxydisement, and often for vessels to contain acid fluids. Small portions are dissolved, and, from the known effects of large quantities of menstrua in increasing the power of agents, we may learn why a deleterious effect is produced by cyder, light wines, &c. in which lead is dissolved. The oxides of lead, lytharge (protoxide) and minium (peroxide), the chloride (patent yellow), and the carbonate (white lead), are all employed by artisans, especially painters, in very large quantities, and in such a manner as to expose large surfaces of the body to their constant contact. Added to which, from a want of cleanliness, much is often taken into the stomach with the food; but, above all, in combination with turpentine, varnishes, and other volatile substances, it finds its way into the system through the lungs, and in a state of great activity. In all these cases we need not wonder at the occasional occurrence of colic. It may be questioned whether there is any other metallic substance, except iron, that could be so much employed with equal impunity: yet it is on this ground, and on this alone, that a prejudice has so long existed against the employment of every form of lead as a remedy. But experience teaches us, in the analogous instances of iron, mercury, antimony, arsenic, copper, silver, &c., that, while a metal in a state of purity may be, as to any power over the human body, altogether inert and useless, its combination with other substances, oxygen, chlorine, iodine, or in the state of salts, furnishes us at the same time with our most valuable remedies, and the most dangerous and powerful poisons. The attempt to bring into discredit the protochloride of mercury, on the ground that the perchloride, or the sulphate, of that metal is poisonous, would be looked upon as the height of absurdity. But, in the case of lead, this new species of logic is admitted as conclusive: many writers on therapeutics have considered it quite sufficient to show that some salts have certainly produced colic, to induce them to deprecate the use of every form of the metal as a remedy.

The authority of Sir GEORGE BAKER is generally referred to, as conclusive evidence for the dismissal of lead from our materia medica. His papers, published in the first volume of the Medical Transactions, are intended to prove that colica pictonum is in every instance to be traced to the introduction of lead, in some form or other, into the system; and much ingenuity and erudition are displayed in conducting the argument (for an argument it is), laboured to establish a preconceived hypothesis: and as, alas! too often happens in disputation, the authorities he refers to, if examined, will be found not to warrant his statements; indeed, they sometimes stand in direct opposition to them, and he unfortunately suppresses all the evidences against his views. Having once determined to prove that colic and lead are inseparably connected, he, of course, recommends its disuse as a remedy, and disbelieves all the numerous authors who speak of it favorably.

The etiology of that interesting disease, colica pictonum, has not yet been satisfactorily explained. Its prevalence among painters has given rise to the idea that it is connected with lead, In Derbyshire, where it is frequent, leaden vessels are used to contain cyder, and it is certain that a malate of lead, in large proportions of menstruum, does occasionally produce colic. But, if we reflect on the comparative infrequency of the disease in connexion with the extent to which the metal is employed, we shall certainly see that the constancy of a connexion between them is problematical. There are other facts pointing to different causes for the disease. It is endemical in some of the West-India islands, where no lead is employed; and we know that it is produced by the oxides of other metals. From the frequency with which lead is impregnated with arsenic, perhaps that metal may be looked upon as the most common cause. At the same time, we do not mean to deny that the carbonate and some other forms of lead will produce colic, and there can be no doubt that many constitutions are so susceptible of their influence that even the milder salts cannot be given with impunity. In no other instance has this circumstance driven a remedy from practice. Were such a principle adopted, we might lay aside every active drug in the Pharmacopœias.

Another writer on the subject is referred to in the Dispensatories, to deepen the existing prejudice against lead. In the "Journal de Physiologie experimentale" of Magendie, the third Number, July 1821, is a paper on Lead, by Dr. Gaspard; a quotation from which will show the credit that is due to the references made by compilers of Dispensatories to confirm their own dogmatic assertions. "Un medicin," says the author of that paper, "que j'estime beaucoup, et dont je loue le zèle à augmenter les richesses de la matière medicale, et a determiner les proprietés réelles des medicamens, m'a etonnée en publiant dernierement, comme resultats de ses recherches experimentales sur l'acetate de plomb: 1. Que ce sel peut être administré sans danger aux phthisiques, à la dose continuée de douze grains par jour; 2. Qu'on lui a reproché a tort de produire la colique dite de plomb." M. Gaspard proceeds to relate his experiments, which he conceives invalidates these conclusions. He injected into the veins of three dogs a solution of acetate of lead, which, being several times repeated, at length destroyed the animals. On throwing it into the cellular tissue of a cat, he produced an abscess difficult to heal. He next placed some tadpoles into a solution of the acetate of lead; they lived for some time, but at length, after many contortions, minutely described by the writer, they died. "Je conclus," he continues, "de ces experiences, 1, Que l'acetate de plomb introduit, meme à trés petite dose, dans les voies circulatoires, est un poison tres dangereux, quoique lent et insidieux; 2, Qu'il ne peut être employé à l'Interieur, sans danger, par un medicin prudent, à quelque dose que ce soit." Such is the conclusion, almost literally translated by an English writer, as an unquestionable truth, who refers to M. Gaspard as having justly established it.

Physiologists have always been too much disposed to apply principles deduced from observation on the lower animals, to explain the phenomena of the human body, in the face of the well-known fact that substances from which animals derive a wholesome nourishment are to our species deadly poisons; and, on the contrary, some of our most useful remedies are fatal to brutes. The details M. Gaspard gives us of the morbid appearances on the dogs, are utterly worthless; for, even supposing the effects of lead upon the human body analogous, they would doubtless be very different, introduced directly into the circulation by the veins, to those resulting when the substance is taken into the stomach, and there elaborated in the process of digestion.

Cases of death from poisoning by any form of lead, are either very rare or they have not been recorded; at least, English medical literature furnishes very few. In such cases as have been properly investigated, no morbid changes of structure whatever could be traced.*

We have alluded to the misstatements of the most esteemed works on Materia Medica, concerning the properties of the salt of lead: it may be proper to quote the most influential to justify this charge.

CULLEN says, "Hardly any practitioner will think of employing lead as an internal remedy." Indeed, he entertained so decided a prejudice against lead in every form, as equally to condemn its employment externally: he praises a very worthless book of a Mr. Aiken, written against the well-known tract of M. Goulard. Who at present can doubt of the value of the subacetate of lead as an external application in inflammation?

DUNCAN, in the Edinburgh Dispensatory, condemns its use altogether, and asserts, without alleging any reason, that "it is entirely to be rejected."

A. T. THOMSON, in the London Dispensatory, remarks that, "taken internally, acetate of lead is a very powerful *astringent* and *sedative;* combining it with opium prevents the deleterious effects which salts of lead are apt to produce when taken into the stomach. The dose should not exceed half a grain every six or eight hours."

MURRAY observes, that, "From the deleterious agency of lead on the system, it is a remedy which must be used with reluctance, and which is accordingly scarcely ever used in modern practice.

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* Medical Society's Transactions, vol. i, part i. The morbid appearances produced by lead are described by Dr. CHRISTISON, p. 422. (*Christison on Poisons.*)—ED.

With similar cautions it is spoken of by BRANDE, PARIS, URE, COX, CHAPMAN, and a host of writers on the practice of physic; all, however, agreeing in one error, namely, the assumption that, because some salts of lead are deleterious under some circumstances, *therefore* all must be equally so. It is true also that all the encomiums that have been lavished on the medical virtues of lead, except by very recent writers, were applied equally to all its salts; and when, in collecting evidences of their injurious effects, they were all equally confounded, we cannot be surprised that a prejudice should be, in deference to those authorities, widely spread. And as the forms of the remedy, so also the diseases in which it was employed were never distinguished by any judicious test. All the forms of lead were employed so late as the middle of the last century, particularly in Holland, Denmark, and other countries of the continent. Authors recommend them in so great a diversity of cases as to afford DE HAEN ample room to make out an appearance of reason against their use. To him we may certainly refer the idea of Sir G. BAKER, of finding in lead an invariable cause of colic, and of depreciating its employment as a remedy. In vain Dr. SEERAP defended it in a separate treatise: the superior reputation of those who opposed it prevailed, and the result, as we have seen, continues to extend its influence to the present day.

Within these few years, however, numberless writers have laboured to prove that the acetate of lead may be employed with caution, and in combination with opium, in very small doses; but no one has paid sufficient attention to the subject to establish its true value, and enable practitioners to prescribe it in effective doses with confidence. There are certainly many facts concerning its agency on disease not at present known. If these hints should lead to more successful investigations, the end of the writer will be answered; yet something, he thinks, both new and useful will be found in what follows.

In the first place, the acetate of lead, taken into the stomach even in considerable quantity, produces *no immediate effect whatever*,* that is, in the quantity of one drachm to half an ounce; in this respect agreeing with many of our most esteemed drugs, ergot, sarsaparilla, &c. It is remarkable that this fact should have so long escaped notice. We constantly read of great alarm being excited by the acetate of lead taken accidentally, and of violent means had recourse to for removing it from the stomach. Many cases are recorded in the early volumes of this Journal, in the Medical Transactions, and other periodicals, of its having been taken in large quantities without producing any deleterious effect. In one instance recorded in the former Journal, a whole family partook largely of some broth in which nearly a pound was dissolved; and the escapes in all such instances are mentioned as very marvellous. A paper appeared lately in the Lancet, detailing experiments performed on the author's own person, with a similar result; and as, at a medical society, it was stated that the acetate of lead produced no effect unless some decomposition took place in the stomach, we expect to hear it condemned as a remedy, not on account of its poisonous properties, but because it is altogether inert. There are, however, persons who are affected by acetate of lead in a most peculiar manner; that is, it produces a decided tendency to colic in a very short space of time: but such cases are very rare, and we must be content to say of them that they depend on the idiosyncrasy of the individual. On this account a caution is necessary in using it, which we shall presently explain. Every one must be familiar with cases where the most innocuous substances cannot be taken, or even smelt, with impunity. This will consequently have no weight in determining the propriety of the use of acetate of lead as a remedy.

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* Dr. Christison (p. 413 *loc. cit.*) states that he has often given the acetate of lead in divided doses, to the amount of eighteen grains, for eight or ten days, without remarking any unpleasant symptom whatever, except once or

Secondly. The best known of the secondary effects of the acetate of lead, is its tendency to check inordinate discharges, either of blood or secreted fluids. It is as an astringent merely that it has been so generally employed; some practitioners extolling it very highly, while others are unable to observe any advantage from it. The continental writers greatly extolled all the salts of lead in hemorrhagies from the lungs, stomach, and uterus; and immediately after the papers of Sir G. Baker in the Medical Transactions, we find papers by Dr. REYNOLDS and Dr. LATHAM,

twice slight colic. VAN SWIETEN* even mentions a case in which it was given to the amount of a drachm daily for ten days, before it caused any material symptom.—ED.

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* Comment. 1060, t. iii. p. 347. Editio Dan Barbari.

highly extolling its effects "in hemorrhagies, in colliquative diarrhœas, and hectic perspirations, and especially in the semi-purulent expectoration which too often terminates in pulmonary ulceration and consumption." Dr. Latham asserts his belief " that there is some fallacy in imputing to lead the deleterious qualities almost universally attributed to it." It has also been recommended, by good authorities, in ordinary diarrhœa, in dysentery, in leucorrhœa and in gonorrhœa, in diabetes, &c. It would be too much to expect that in all these diseases, occurring as they do under so great a diversity of circumstances, any one remedy should be constantly beneficial. There are certainly cases in which the acetate of lead is an invaluable remedy, and others in which it is worse than useless. The pathology of hemorrhagies has not yet been sufficiently investigated to establish accurate distinctions between these; but it is certain that, in plethoric habits, where there is great muscular strength and strong vascular action, the administration of lead should never precede venesection: perhaps in these cases there is no need of it, as general and local bleeding and strict antiphlogistic regimen are sufficient. In cases occurring in weakened constitutions, especially where there is also great morbid sensibility and irritability, it is beneficial. In dysentery, the irritation of a part of the lower intestines, induced by the hardened feces, cannot always be allayed by opium, and it is desirable to do this before we have recourse to purgation. Now this irritation, together with the consequent flux of blood, is more speedily relieved by the acetate of lead than any other remedy: it should be given in larger doses than are usually employed, and followed up, in the ordinary manner, by purgative medicines. That many other discharges, particularly gonorrhœa, leucorrhœa, &c., are relieved by the acetate of lead, will be readily believed from what we know of its effects on the minute vessels; but the length of time necessary to ensure its effects, and the more ready means of cure we possess, will perhaps preclude its becoming a common remedy.

Thirdly. A direct influence upon the generative organs is apparently justly attributed to lead. GALEN* mentions this property, "ad coercendum et delendum libidinum." PARACELSUS extols it as a remedy in some forms of madness;† and a remarkable case of nymphomania is related in the Medical Repository, vol. iv. p. 256, cured by the administration of the superacetate. The property of this salt of lead here alluded to was well known on the continent; for De Haen observes, "Sacchari saturni usus internus laudantur, quia refrigerat et exsiccat, semen extinguit et venerem flaccescentem inducit."* The only allusion to this property I know of in English medical literature, is the case above referred to. It certainly offers an important prospect of usefulness in cases of madness induced by ungovernable animal passion. Such cases are by no means rare, and the failure of general means of cure would render any chance of a resource desirable.

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* Tenth book of Simple Medicines.

† De Morbis Amentium.

Fourthly. The most important property of the superacetate of lead, however, is its influence on nervous pain. I am not aware that this has been observed before: it suggested itself from reflecting on the symptoms produced by the salt when exhibited for a long period in hemorrhagies; and I can confidently announce it, after a long experience of its effects, to be the most valuable remedy we possess for pain of a nervous character, unconnected with vascular or organic changes; in a word, idiopathic pains. One of the best known instances of this affection is the tic douloureux. This formidable disease, there is no doubt, exists in two kinds: first, as a simple nervous affection; and, secondly, as symptomatic of organic lesions of the brain. The best pathologists have been unable to distinguish the one from the other, except the death of the patient gave the opportunity for a rigorous examination. The disease is comparatively rarely fatal: it more frequently exists for months, or even years, a source of disquietude and torment to the unhappy sufferer. That this nervous pain is not confined to the nerves of the face, is universally known: it occurs in every part of the body, in the superficial ramifications of the nerves, and the general term neuralgia is applied to it. Attempts have been made by some writers to show that it always consists in inflammation of the tunics of the nerves, and by others to resolve into this disease many other and dissimilar painful affections: but, while we think this generalization erroneous, we have been led to entertain the opinion that a similar morbid state of the nerves, perfectly analogous to that existing in superficial nerves, and termed neuralgia, frequently occurs in the internal parts of the body; in the nerves of the chest, liver, gallbladder, stomach, spleen, and other parts. There are few chronic affections so prevalent as local pain in the chest and abdomen, often in the obvious situation of an organ, but most frequently so situated that we are unable to determine its precise seat. Such pains, unattended by fever, continue for months, or even years, aggravated at uncertain intervals, and resisting the influence of all our known remedies, until perhaps some decisive change in the condition of the patient, in his manner of living, from other and more active disease, from mental emotions, change of air, or some other circumstances, the pain is lost. In these cases we may in vain ring every possible change on the depletory measures, purges, mercurials, &c., ordering the patient from town to country, and from country to town, and, after all, have the mortification of seeing him suffer as much as at the beginning. To every one in extensive practice, such instances are often presented; and a safe and efficacious remedy must be a great desideratum. The acetate of lead is such a remedy, and it may be given to as great an extent, under proper precautions, as any metallic substance we employ. It appears to act by allaying the morbid sensibility of the extremities of the nerves immediately, and not through the medium of any change in the circulating system. This power is not analogous to that possessed by any other of the class of remedies we term sedatives, but is a peculiar and specific effect of the acetate of lead. A few cases, selected from a great number, will illustrate this, and point out the precautions necessary to be observed in its exhibition.

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* Ratio Medendi pars decima.

Case I. *Nervous Pain in the Chest.*

E. J., a robust young woman, of a florid complexion, twenty-one years of age, has been subject to a pain in the chest for about nine months: it has been constantly felt in a slight degree, but severe paroxysms have occurred several times. The situation of the pain is described as being most severe in the middle of the breast bone, but spreading over a large space of the chest. No obvious cause can be assigned for the recurrence of a paroxysm. During the intervals, and even at first, when the pain is most severe, the pulse is not at all affected, being seventy-five, without hardness, fulness, or contraction; the tongue is clean, the skin moist; and, indeed, every function of the body is well performed. The pain continues severe; but, a short time before, the breathing becomes hurried, the pulse quick and irritable, the tongue furred in the middle, with redness of the edges, the countenance flushed; and there is a frequent, distressing, and dry cough. These symptoms are severally aggravated, the pain increases, and in about twenty-four hours the aspect of the disease would apparently warrant its being termed inflammation of the chest. At the period of the first attack, the paroxysm had existed for some hours when I was called in to see the patient, and I regarded it as an inflammatory affection, and treated it by large bleedings. The blood first drawn did not exhibit any buff, but at the third bleeding there was a slight appearance of it. The pain was little affected. Leeches were applied, blisters and the strictest antiphlogistic regimen enforced; but the influence of these measures on the disease was by no means satisfactory. After about ten days the pain subsided into a dull aching sensation; and this I could not relieve by any plan of diet, or by medicines, sedative, tonic, or purgative. Mercury also was tried in vain.

After about two months, another severe paroxysm, with a precise reiteration of the symptoms, was treated on the same plan, and with a result perfectly similar. The pain remaining after the severer paroxysm had subsided was sufficient to give the patient great annoyance, and to cause a constant depression in her spirits.

A third attack occurring, I was sent for sufficiently early to see the successive changes in the symptoms, and remarked that all had their origin from the pain. This time stimulants and narcotics were depended on, with such variation as the circumstances suggested; but this plan succeeded no better than the former. The dull harassing pain left was accompanied by no deviation from a healthy state of the functions, except rather a feeble appetite and sluggish bowels; the latter readily obviated by any mild aperient. Change of air, perfect rest, then exercise and various modes of living, were tried, and without any apparent effect on the pain.

In another month the attack returned, with more than ordinary severity: having then recently seen the effect of acetate of lead in cases of nervous pain, I gave three grains of it every three hours, followed by a draught of very dilute acetic acid, (ten minims of the strong acetic acid to two ounces of water.) In about thirty-six hours the pain was greatly relieved; more strikingly so than it had ever been by former remedies. Then, extending the interval of the doses first to four, and afterwards to six hours, it was continued for four days longer, when the pain was completely removed, and not the slightest vestige of it has existed since, and the patient perfectly recovered her health and spirits.

In administering the acetate of lead, it is necessary to be aware that, in some constitutions, the first few doses may produce a griping pain in the bowels: this has, however, happened but in one or two instances in my practice, and was immediately relieved by a small dose of sulphate of magnesia. Costiveness is a more frequent effect, and happens after the acetate has been taken for a day or two: it always may be readily removed by some mild purgative, castor oil, jalap, rhubarb, &c.; but all salts should be avoided. While the acetate of lead is taken, the stools are black, making it apparent that some of the lead must get into the larger intestines, and be combined there with sulphuretted hydrogen. After continuing it for a period varying in different individuals, from a few days to a week or more, it appears to act on the nervous system specifically, the disease yields, and a numbness is felt in the ankles and wrists, attended with shooting pain; the evidence that the influence of the medicine is exerted on the system. These effects, resulting from a slow exhibition of the acetate of lead, as compared with the comparative inertness of a single dose, closely resemble the variable uses of other remedies, (calomel or colchicum, for instance,) according to the mode of their employment. When these symptoms occur, the medicine should be discontinued; but, indeed, it will seldom be found necessary to proceed further.

Case II. Mrs. H., a pale but stout female, aged thirty-five, had lost all her children from scarlet fever, and, with her husband, had herself gone through a severe attack of the disease, and suffered much from the sequelæ, œdematous swelling of the legs and other parts. Before her strength could be restored, she was attacked by a pain in the face, at first slight in degree and constant, but it soon became aggravated and intermittent: in a word, it was unequivocally tic douloureux. It is unnecessary to describe the paroxysms of this well-known affection, and the causes exciting them in greater or less severity: suffice it to say, the patient's sufferings were *tremendous.* The carbonate of iron and sulphate of quinine were severally tried, and fairly, but without the least apparent benefit. I then had recourse to the acetate of lead, exhibited in the same manner as in the preceding case. The numbness and pain in the joints were produced in five days, and the pain in the face was entirely removed. Aperients were called for during the administration of the remedy, and for a short time afterwards, which, with the assistance of a light tonic, restored the patient to her accustomed health.

Case III. The next case I shall quote tends rather to illustrate the views I have ventured to give in pathology, than to be decisive of the value of the acetate of lead. It was, indeed, the first case in which I employed that remedy for pain of a nervous character, directed by reflections on the effects usually seen when it has been given in hemorrhagies, and one or two cases of gastrodynia relieved by it.

A young man, about eighteen years of age, applied to me for relief from a pain in the right side. The history he gave of his disease was, that it had occurred first when he was at school, about four years before; that he could scarcely ever say he was entirely free from it, but that, at uncertain intervals, from a day or two to several weeks, he was liable to pain of extreme severity. He had been treated by several medical men, and, as far as I could learn from his own relation, on the general principles of bleeding, purging, counter-irritants, &c., but he had never experienced any decided benefit from any thing. The pain was situated exactly in the region of the gallbladder, chiefly in a space of about three fingers' breadth, but spreading around into a larger space. There was no tenderness on pressure, no evidence of any disturbance in the function of the gallbladder, liver, stomach, lungs, or bowels; the pulse quickened during a paroxysm, the tongue became furred, and skin hot and dry; but at other times no marks of febrile action were present. The patient's appetite was good, and there was no sickness; he followed a laborious occupation, that of a butcher, ate heartily of animal food, and was capable of much muscular exertion.

His first application to me was in November 1827. He had been accustomed to seek the temporary relief of an opiate, and strong pressure on the part, after a blister and a free purgation. I gave him the acetate of lead in small doses, and combined with opium: this not relieving, I ventured on larger doses and uncombined, and it succeeded beyond my expectation. The patient felt more benefited by this than any former plan, and in a fortnight he was free from pain.

In March 1828, he had again a slight attack, but it was immediately subdued by a few doses of the remedy. From this time he continued well until the 17th of December in the same year, when, after feeling a slight degree of pain for a few days, an attack of extreme severity suddenly came on

No small portion of the public unfortunately entertain the extravagant notion that a remedy, to be of any value, must not only cure a present malady, but must prevent the possibility of a future return, in spite of every opposing habit and circumstance of the patient. In the present instance, as I was not immediately at hand when summoned, a physician was sent for: I communicated my opinion of the nervous character of the disease to him, but he saw reason to adopt a different view, and treated the case as inflammatory, by bleeding, purgatives, salines, cupping, leeches, blisters, warm baths, and every other means that could be devised, and without the slightest benefit. Indeed, as the patient became weakened, the paroxysms of pain became more frequent and severe, and at length there was scarcely any intermission. Sedatives, opium, and henbane internally, belladonna in the form of extract externally, were equally unsuccessful. Again, the depletory measures were gone over, and a period of three months had now elapsed since the first commencement of the attack; and, although the strength of the patient was by this time dreadfully prostrated, the patient being put under my care, I determined on a trial of the acetate of lead. After three days the pain was relieved, but the ankles and wrists were severely affected. Light tonics and aperients followed, and the patient left town for the country better, yet with a constitution dreadfully shattered by the long-continued suffering. The change of air did not rally him, and he returned to town, and sought the advice of another physician, under whose care he continued for a month, apparently improving, but not very rapidly. During this time the remedies employed were various; tonics, bitters, aperients, &c. No severe pain was experienced, but occasional pains wandering over the body and limbs were relieved by small doses of Dover's powder.

The patient thought himself able to return to his employment, and essayed to superintend the business of a slaughterhouse: he was tempted to make some violent exertions, and the result was that he was attacked by peritoneal inflammation, that quickly destroyed life.

The post-mortem examination of this case furnished a striking illustration of the extent to which disease may proceed in the production of suffering, without leaving any trace in the structure of the body. The marks of recent inflammation, effusion of serum and floating lymph, were all evident enough to account for death, and of recent origin; but the liver, gallbladder, stomach, and indeed every other organ, were entirely healthy, except a small spot of the stomach, the appearance of which was considered very equivocal. I cannot avoid the conclusion that, had the acetate of lead been given in this case, before the plan adopted in December, it would have removed the primary element of the disease, the nervous pain.

Case IV. Pain in the region of the spleen is common to young unmarried women, whether arising from sympathy with the uterine system, or being a simple nervous affection *per se*, it is by ordinary means very little influenced.

Mary Heygatt, æt. twenty-five, has suffered very greatly for a long time with this pain, aggravated at uncertain intervals, and independent of any mode of living, exercise, or rest. None of the vital or animal functions are at all impaired, except when severe pain produces effects perfectly analogous to those mentioned in Case I. I had twice treated her by bleeding, but the result was so unsatisfactory that I resolved on adopting other means should it again return. The opportunity was soon afforded, and the acetate of lead perfectly removed the pain in two days.

It would be easy for me to add a multiplicity of cases where lead has been beneficially employed. I have selected the foregoing, because they appear distinctly to answer the purpose of standing as exemplars of a great number and variety constantly met with.

In conclusion, I would observe that, should it be supposed, from the absence of particulars, the cases are not sufficiently authenticated, and that this would involve some difficulty in private practice, I should be very happy to satisfy any one on the subject, and also to receive any communications either tending to establish or invalidate my conclusions.

TARTAR-EMETIC OINTMENT.

On the Use of Tartar-Emetic Ointment in Chorea, &c. By Charles Byrne, M.D. United States' Arsenal, near Baltimore.*

Since the period when the illustrious Jenner drew attention to the external use of tartarized antimony, and produced so many interesting cases in proof of its efficacy in the treatment of a variety of troublesome diseases, very little experience has been offered to the profession as a test of the value of the remedy, or the soundness of his speculations. All that has been offered, however, is well calculated to increase our confidence in its virtues, and to entitle it to a more extended trial.

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* American Journal of Med. Sciences.

In the eighth volume of the Medical Recorder, there is an account of a very extraordinary case of rotatio or chorea related by Mr. Hunter, of Glasgow, as successfully treated by rubbing the ointment of tartarized antimony into the scalp and spinal column. In the 33d number of the same Journal, a case of chorea is reported by Dr. Wharton, of Virginia, as cured by the same means.

The two cases of chorea which follow are the only ones which have occurred in my practice since the remedy has been suggested; and in both the result has been highly satisfactory.

August, 1828, I was called to visit Amanda Shaw, ætat. thirteen, sanguine temperament, small of her age, but not delicate in appearance; menstrual period not yet arrived. The arm and leg of the right side were the principal seat of muscular irregularity, although there was scarcely a muscle of the body that was not occasionly more or less disturbed; even the tongue refused at times to do its office, and very often performed it in a very imperfect manner. Many of the intellectual faculties were much impaired, particularly the memory; and the countenance betrayed a vacant, stupid expression. The appetite was bad, the tongue foul, and the bowels irregular, generally costive. Her mother stated that she had been in her present situation, with little variation, for the last two years; that during this time no regular medical assistance had been sought, but that she had herself tried a variety of remedies as recommended in "Buchan's Domestic Medicine," particularly blisters and purging; but with no perceptible advantage. As the case seemed to be a fair one for the trial of Dr. Hamilton's practice, I commenced the purgative plan, and continued it for two weeks, when the tongue became clean, and the bowels regular, but without any amelioration of the symptoms. I then gave tonics, decoction of valerian, and carbonate of iron; and finally touched the mouth with the blue pill, but was equally unsuccessful in all. I now prescribed the tartar-emetic ointment, to be applied to the whole spinal column, from the atlas to the sacrum. I ordered two drachms to be rubbed in three times a day, until a plentiful crop of pustules should be produced. On the evening of the second day the eruption began to appear, and from that time to the present, the patient has never been affected with the slightest irregularity of muscular motion. Her mental faculties in a short time resumed their wonted energy, and her health was perfectly restored. From the perseverance with which her mother continued to rub in the ointment after the appearance of the eruption, her back continued very sore for four or five weeks, longer perhaps than was necessary for the removal of the disease.

CASE II. May 1829, I was called to E. Stansbury, a lad of twelve years old, good constitution, sanguine temperament, well grown. The symptoms in this case were in every respect similar to the first case. The patient had been labouring under the disease for nine months, during which time a great variety of remedies had been tried unsuccessfully by a medical gentleman of the neighbourhood. I immediately prescribed the ointment as in the other case, and with equal success, excepting that the right hand did not come entirely under the control of the will for twelve or fourteen days, but from that period there has been perfect immunity from the disease.

The following case of another description may perhaps be worthy of notice.

March 1st, 1829, I visited Sarah Leghorn, spinster, aged twenty-nine, labouring under acute pneumonia. This patient was tall, of delicate make, fair complexion, flat chest, and scrofulous family. From the preceding fall she had had a troublesome, hacking cough, pain in the breast, and occasional hæmoptysis. The most urgent symptoms were now speedily relieved by the usual remedies; but the cough, pain in the breast, and hæmoptysis, continued as before; a deep, well-defined, hectic flush appeared on the cheeks, and all the symptoms seemed to threaten a confirmed phthisis. I prescribed the Ung. Tart. Ant. to be rubbed in night and morning from the superior part of the sternum to its ensiform cartilage, (that being the seat of the pain and uneasiness,) until a plentiful crop of pustules should appear. I did not see the patient again for eight days, during which time she had persevered (having mistaken my directions,) to rub in the ointment until the whole of the space over which it was applied presented the appearance of one immense scab, open, and discharging matter all round its circumference. The pain and irritation produced by this immense sore had deprived the patient of sleep for the last four nights, and her sufferings were such that on my entering her room, (notwithstanding a very mild temper,) she reproached me in the bitterest manner, for having treated her so cruelly. By the application of fresh cream and emollient poultices, the burning sensation was relieved, and by the assistance of an anodyne she had some sleep on the succeeding night. The sore went on to discharge very profusely, and was so painful as to confine her to bed for four weeks. Masses of fungous

flesh shot up all over its surface, which required the free use of caustic; and although no means were adopted to keep it open, it did not entirely heal until October, at which time it left the patient entirely free from all her threatening symptoms, and, from her own account, in much better health than she had been for years previously.

That an approaching consumption has been cured, or at least, suspended, in this case, by the use of this remedy, I have no room to doubt; but what *degree* of its application, short of the extreme to which it was accidentally carried, would have effected the same object, is a question of not so easy solution.

HOSPITAL REPORTS.

WESTMINSTER HOSPITAL.

Cases of Popliteal Aneurism.

Case I. William Cooper, æt. twenty-six, admitted March 24th, under the care of Mr. Guthrie. Is a farmer's labourer, residing at Leatherhead, of middling stature, moderately muscular. He states that he has enjoyed good health until four months since, when, whilst walking, he experienced suddenly a sensation like that of cramp in the left ham. This feeling occasionally recurred, but was not sufficient to prevent him from following his usual avocations. About a month since he became conscious of pulsation in the part, but still he did not desist from his labours. This symptom became aggravated, and he consulted a professional man, who, considering it a case of popliteal aneurism, advised him to enter an hospital. Of his own accord he applied a bandage to the part, which was rather hurtful than otherwise.

Present state: The thorax apparently well formed; percussion exhibits a laudable sound through all parts of the chest, which expands fully on inspiration; respiratory murmur natural; action of the heart regular; systole of the auricles and ventricles perfectly distinct, both in the left intercostal space and at the base of the sternum; the force of the heart is much increased, and its sound is perceptible all over the anterior part of the chest and in the axillary regions. The patient is in other respects perfectly healthy.

A tumor exists in the left popliteal space, making a considerable prominence at the seat of flexion: this may be made to disappear by steady pressure, and it has a pulsation synchronous with that of the artery, and equally distinct on all parts of the tumor; pressure on the femoral artery in the groin removes the pulsation entirely. The patient complains of a dull pain in the part, extending to the calf of the leg; and the affected leg is considerably larger than the other, and slightly œdematous.—Ordered low diet, beef-tea and one egg daily. To be kept quiet in bed.

March 28th.—The bowels have been kept open by house medicine. Was bled yesterday to eight ounces; the blood abstracted was slightly buffed and cupped; on which account, Mr. Guthrie postponed the operation till April 10th.

30th.—V.S. ad ℥xiv. The appearance of the blood is nearly natural.

April 4th.—Much the same; pulse seventy-two, soft, and tolerably full.—Ordered to be bled to ℥xij.

5th.—The blood drawn yesterday is slightly buffed, but not so much as before. The tumor is gradually increasing in size, and a dull pain still continues in his leg, which is rather worse at night. General health good; bowels open, tongue whitish. The patient is very anxious to have the operation performed.

9th.—Mr. Guthrie now directed that the temperature of both legs should be ascertained, which was done by the aid of a small thermometer.

Ten A.M., temperature of the right leg 92°, of the left leg 92°.
Ten P.M. 96°, 96°.

10th.—At one o'clock A.M., the operation of tying the femoral artery in the upper third of the thigh was performed. In the evening, after the operation, he complained of shooting pains in the knee and calf of the leg; pulse full. New flannel was now applied to the whole limb, with bottles of hot water to the foot.

Four P.M., temperature of the right leg 86°, left leg 82°.

Ten P.M.—The patient has dozed a little; pain not so severe; leg feels of a natural heat; pulse eighty, rather full. Temperature of the right leg 93°, left leg 91°.

11th, eight A.M.—Was very comfortable during the night. This morning he complains to Mr. Guthrie of pain in the seat of the incision. The leg is apparently more swollen; veins slightly distended: no pulsation in the tumor; temperature of both legs 92°; pulse 100; tongue furred and whitish; skin hot; pain in the head. Bowels have not been relieved since the operation. Mr. Guthrie ordered the following mixture: ℞. Potass. Carb. ℈i.; Suc. Limon, ʒiij.; Aquæ ʒx.; Sodæ Sulph. ʒi. M. fiat haust. quartis horis sumendus.

Six P.M.—Bowels have not acted. Pain in the head better; pulse 100, offering some slight resistance to the finger; temperature of the right leg 98°, left leg 96°. Ordered by Mr. Guthrie to take Hydrarg. Submur. gr. iv.; Extract. Col. comp. gr. vi. in pil. Mist. Salin. contin. secundis horis donec alvus soluta fuerit.

Eleven P.M.—Bowels not yet moved. Capiat Ol. Ricini ℥i. statim, et repetatur secundâ quâque horâ si opus sit.

12th, eight A.M.—Was seen by Mr. Guthrie. The patient had two scanty evacuations in the night, and he slept tolerably well. His skin is not so hot; pulse as frequent; has slight shooting pains down the inner part of the thigh. Temperature of both legs 94°.—V.S. ad ℥vi. Haustus aperiens statim.

Ten A.M.—Has passed three evacuations. Pain in the head relieved: he has slight pain in the course of the femoral vein; countenance less flushed; pulse 110, irritable. Blood abstracted this morning is slightly buffed, but not cupped. Says that he feels low and weak. Mr. Guthrie ordered the patient to take Mistura Salin. cum Liq. Opii Sedat. ♏iij. quartis horis.

Half-past six P.M.—Much better. Pains in the thigh not so frequent; countenance more cheerful; skin cool; pulse 110; tongue moist; bowels freely open.—Cont. med.

Ten P.M.—Has suffered from slight pains in the abdomen; limb quite easy. To take Liq. Opii Sedat. ♏iv. directly, and to repeat the dose at twelve o'clock, if it be necessary. The night nurse ordered to report the state of the parient every four hours.

13th, eight A.M.—The draught was repeated at twelve o'clock, and the patient slept the remaining part of the night. He is in no pain at present, but occasionally experiences shooting pains in the course of the femoral vein. Just below the incision there appears a slight blush of redness, with fulness and tenderness on pressure. Temperature of both legs 93$_o$; pulse ninety-eight, and soft; tongue not so much furred, and moist. The diseased leg is not so much swollen; and Mr. Guthrie thought the tumor not so large as it was previous to the operation. The strips of adhesive plaster were loosened, and the patient ordered to take some opening medicine. Twelve leeches to be applied in the course of the femoral vein, and a bread and water poultice afterwards.

Four P.M.—The leeches have bled freely, and he feels some slight relief. In other respects much the same; pulse 110.—To be bled at nine o'clock.

Ten P.M.—Pulse 120, full and hard. The patient was now bled to ℥xij., and he expressed himself much relieved.—Cont. Liq. Opii Sedativus.

14th, eight A.M.—Has passed a good night, and this morning he has but very little pain in the thigh. The blood is buffed and cupped. Pulse 810, soft; skin cool; tongue white; bowels freely open; temperature of both legs 92°.—Rep. med.

Ten A.M.—The strips of adhesive plaster were removed: the wound appeared healing; a good deal of healthy matter discharged, which was pressed out, and the wound dressed. There is slight tenderness of the thigh, but the patient suffers very little pain; no pulsation of the tumor; countenance slightly blanched, but cheerful.—Rep. med.

Ten P.M.—The thigh much easier since the morning.—Capiat Liq. Opii Sedativ. ♏iv.

15th.—The patient slept well last night. There is slight tenderness on pressure at the lower part of the abdomen, and he complains of an inability to pass his urine. No pain in the thigh;

great discharge from the wound; skin cool and moist; pulse eighty-two, soft; tongue clean, bowels open.

Ten A.M.—Has voided his urine, and he now feels much relieved. A roller with padding was applied in the course of the femoral vessels, to prevent the lodgment of matter.

16th.—The wound was dressed this morning. The patient is going on well; pulse soft; has no pain in any part.

17th.—Dressed by Mr. Guthrie, who observed that the tumor is much smaller. The veins of the leg are less distended.

27th.—The patient has continued gradually improving, the wound being dressed every morning, and the bowels regulated with small doses of Epsom salts. This morning both ligatures came away. Some luxuriant granulations were checked by an application of the lunar caustic, which produced some swelling and tenderness: these were speedily relieved by the aid of a poultice.

May 16th.—Since the last report, the patient's general health has progressively improved. A slight purulent discharge existed for several days, but it has now entirely ceased, and the cure may be considered complete.

CASE II. Sunday, May 16th, 1830.—Thomas M'Caughin, æt. thirty-three, admitted May 14th, with popliteal aneurism in the left leg. He was brought up as a gardener, and entered the army at the age of seventeen. States that his health has never been affected. He is about five feet ten inches high. On the 2d of April, whilst making a charge on a field day, his leg was crushed; the holster of his left-hand comrade struck him in the ham; the whole limb, from the knee downwards, swelled, and became very painful; there was no discoloration of integuments, and he continued his duty for about four days after the accident. The day after the receipt of the injury, whilst marching, he first perceived a pulsation in the left ham, which continued to increase until, on passing through London, he was received into hospital.

The patient appears to be in sound health; his chest is well formed, broad, and capacious; respiratory murmur natural, percussion elicits no peculiar sound; action of the heart regular; pulse sixty-four; bowels open; tongue clean; appetite unimpaired. Temperature of the limb 88°.—Ordered to bed, and to have low diet.

On Saturday, May 15th, Mr. Guthrie, in the presence of the other medical officers and a numerous class of pupils, secured the femoral artery at the upper third of the thigh. After the patient had been removed to his ward, Mr. Guthrie directed that the limb should be placed on pillows in the half-flexed position, and flannel to be wrapped around it. If the temperature should get lower than natural, bottles of hot water are to be applied to the soles of the feet.

Three P.M.—The temperature of the limb, about an hour and a half after the operation, was 88°. He is very comfortable, and at present free from pain.

Five P.M.—Was seen by Mr. Guthrie, who remarked that the tumor was somewhat diminished in size already. The veins of the leg were fuller than they were previous to the operation; temperature of the limb 88°. Towards the evening complained of sickness from the constant pain around the thigh and ankle-joint. Does not experience the sensation of numbness of the leg.—Capiat Liq. Opii Sedativ. ♏xv.

May 16th, eight A.M.—Was visited by Mr. Guthrie. Has passed a comfortable night; no febrile excitement; thigh and leg easy; pulse sixty-eight; bowels not yet opened; tongue moist; skin natural; countenance cheerful.

Ten P.M.—Feels rather sick; bowels have not been relieved since the operation; complains likewise that he is unable to void his urine; no pain, but a sensation of fulness in the pudic region; tongue moist, and covered with a whitish fur; pulse seventy-four, slightly accelerated. No pain in the thigh or leg; temperature of the limb 92°.

17th, eight A.M.—Has passed a comfortable night: sickness has subsided; bowels have been freely acted upon; tongue moist and whitish; no thirst; skin moist; pulse seventy. Complains of a sensation of numbness in the foot. Temperature of the left leg 93°, right 92°.

Nine P.M.—Feels comfortable: no pain in the leg or thigh. Bowels open seven or eight times, in consequence of the night nurse administering the medicine rather too freely. Sensation of numbness continues. Temperature of both limbs 93°.

18th.—Visited by Mr. Guthrie. Has passed a good night: no pain in the leg or thigh; bowels open; tongue moist, and covered with a whitish fur; skin cool; pulse seventy-four. The temperature of the limb operated upon is 92°. Does not take any medicine. Wound has not been yet dressed.

19th.—Wound dressed, having nearly healed by the first intention.

The ligature remained until the 31st day, when it came away spontaneously. This patient never had a bad symptom.

Mr. Guthrie performed these operations with that coolness for which he is remarkable, demonstrating the parts as they were divided, as if it had been a dissection on the dead body, in a manner most advantageous for the students. The patients suffered but little pain.

HOPITAL SAINT ANTOINE.

Use of Oil of Turpentine in Neuralgia. By M. Rayer.

Since the appearance of M. Martinet's observations on the employment of oil of turpentine in cases of neuralgia, and especially in sciatica, various practitioners have had recourse to this remedy with success. The following cases show the utility of turpentine in these always painful, and too frequently perplexing maladies.

Case I. A man, æt. sixty-six, was admitted, in May 1829, with the ordinary symptoms of intense facial neuralgia of the right side. The disease had existed for twelve years, and it first appeared after the suppression of a rheumatic affection of the right arm, which had lasted fifteen months. The patient had been in several hospitals, but, in spite of the treatment that had been practised by different eminent physicians, the lancinating pains in the face were not relieved. Leeches and blisters to the cheek, general bleeding, acupuncturation, the extraction of four teeth, valerian, extract of belladonna, had all proved of no avail. The facial nerve had been divided, but, of course, without any benefit.

When the patient entered the hospital of St. Antoine, he was suffering the most dreadful torments. The pain was seated deep in the orbit, in the temporal fossa, in the superior alveolar process, and in the sub-orbitar region. Sometimes it darted over the whole of the right side of the face, while at other times it was confined to a well-marked line in the track of one of the branches of the affected nerve. It attacked by paroxysms, which lasted from one to ten minutes. Several paroxysms occurred during each day, and their frequency appeared to be increased when the patient had either eaten or spoken often. When the attack was very severe, the integuments under the eye were wrinkled, the muscles of the face were convulsively contracted, the secretion of tears very abundant, and sometimes the jaws were violently and suddenly closed. In this state the patient was neither capable of speaking, nor of attending to what was said to him. There was neither redness nor swelling of the face. Either a warm or humid temperature was much feared, but from dry and cold weather some relief was obtained.

M. Rayer advised the application of an opiate plaster, which was renewed several times a day, without any benefit.

June 2d.—He commenced with half a drachm of oil of turpentine in a mixture, and the dose was gradually increased to two drachms. Each day the relief was evident, and on the twelfth from the commencement of the remedy the pains were considerably diminished, and the attacks much less frequent.

15th.—As the stomach and bowels appeared to be irritated by the turpentine, it was omitted, and tartar-emetic ointment was directed to be rubbed in upon the cheek for one week.

25th.—The attacks have been repeated with increased violence. The oil of turpentine was again given, and in five days each dose was one drachm and a half. The patient was again decidedly relieved, but, as his stomach would not bear the remedy, it was unwillingly discontinued; and during the following days half a grain of tartar emetic was occasionally given in pills, which produced vomiting.

July 15th.—The patient was anxious to leave the hospital, as he was so much better. He had now but three or four slight attacks in forty-eight hours, and when he was admitted he had twenty-five or thirty very violent paroxysms in the same space of time.

On the 17th August, he was again admitted. The pains were now as frequent and severe as at first. Again the turpentine was administered with much advantage, but, from the idiosyncrasy of the patient, it could not be continued. From various other remedies no further relief was obtained, and the man left the hospital to go into the country.

Case II. January 16th, a woman, ætat. forty-four, was admitted. She had been much exposed to bad weather, and, after a wandering rheumatic affection, was now labouring under very severe sciatica. During twelve days camphor pills were given, but, after a temporary relief, the pain returned with increased violence. She was bled to the amount of fourteen ounces, and one hundred (!) leeches were applied at two different times upon the course of the affected nerve. No permanent relief was obtained. Blisters were applied to the great trochanter and the head of the fibula, but the suffering of the patient appeared to be augmented.

February 7th.—Twenty-four drops of oil of turpentine were given in a julep, and continued each day until the 14th, and the disease was completely cured. From the 10th, the patient was quite relieved from pain, and her general health was much improved. Neither the stomach nor bowels suffered from the use of the remedy.

BALTIMORE ALMSHOUSE INFIRMARY.

Conscrescibility of the Blood. By Dr. Wright.*

A young woman, name unknown, aged about twenty, full muscular form, and very fat, was brought to the Almshouse in a state of insensibility, on the 20th of March, 1829. No information could be obtained of the person who brought the woman, as to the cause or duration of her present state. He had been employed to take her from a house of ill fame in the city, and knew nothing more about her.

From the symptoms, and all that could be learned, the woman's condition was presumed to be the effect of intemperance, her insensibility the stupor of profound intoxication. She died almost immediately on being taken into the ward.

Examination three or four hours after death. Great sanguineous engorgement of all the tunics of the encephalon; both vascular systems fully injected; no special lesions by extravasation or palpable effusion. Stomach: Mucous coat generally florid around the pyloric orifice; all other viscera of the abdomen natural. Thorax: Lungs sound; gorged with blood, dark-coloured, and heavy. Direct cause of death uncertain, whether from congestive apoplexy, or fatal stupefaction by narcosis.

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* American Journal of Med. Sciences.

The subject of this case was brought to the institution in the interval between my visits, died directly after admission, and was examined by three highly intelligent students of the house, Dr. SMITH, Dr. WARNER, and Mr. GLASSELL. These gentlemen did me the favor to show me the heart of the subject, together with a body representing an exact cast of its chambers, of the canal of the aorta for five or six inches, (to where it was divided by themselves,) and of the tubes of the carotids and subclavians. This was a homogeneous coagulum, giving the figure of the cavities of the heart, and prolonged into solid cylinders, (five to six inches,) corresponding to the interior of the aorta, carotids, and subclavians; the cast of all the parts was of full natural size, the substance dense, and somewhat elastic. In the heart the concrete filled all the space completely, dipping between all the columnæ corneæ of the ventricles, and taking the impression of the musculi pectinati. The whole body was white and polished on the surface, and lively yellow-green within; a thin stratum of fluid red blood stained the surface of the coagulum in places. The gentlemen who made the examination represented that the trunk of both cavas was occupied by the same concrete matter, with a little fluid blood around the plug. Cylinders of the same matter were found in all the arterial and venous tubes as far as investigated, chiefly of the neck. The examination had not been carried to the principal trunks remote from the heart.

Does this process of concretion in the chambers of the heart, or the trunks of its great arteries, ever anticipate death? A man under treatment in one of our wards for chronic dyspepsia, not of aggravated character, was attacked about the 10th of Sept. (past,) by a sense of weight and pain of the chest, difficult breathing, chills and flushing, hot skin, feverish pulse, general bad feeling, anxiety, and aversion to lie down. He was bled, cupped across the thorax, and took a saline purge with antimonial combination. Next day, no better, hot skin, quick, sharp pulse, rather smaller, heaviness, with some pain in the breast; breathing slow, but embarrassed, not full; posture erect, sitting up; very small cough. Cupped on the sides, antimonial powders with nitre and gum Arabic, also the neutral mixture. The symptoms aggravated in the evening, oppression and labour of breathing increased, extremities became cold, circulation ebbed rapidly, and he sunk in the course of the night.

Examination. Subacute inflammation of some central portion of the lung had been suspected in the case. We found the lungs pale, soft, and natural throughout, no surface or central inflammation, congestion, or condensation, some hydropic infiltration of both pulmo-pleural sacs. The pericardium was half filled with bloody water, the inner surface of the bag pink-red colour. The surface of the heart was dark red; the coronary veins large and congested, those of the base of the heart, the posterior coronaries, stood full above the surface of the heart, gorged with black blood, and three of them larger than goosequills. Handling the heart, or pressure on those veins, did not at all empty them. The left ventricle was empty, the semilunar valves at the root of the aorta were fibro-cartilaginous; a small bone in one of them. The right ventricle empty. The right auricle was completely filled by a grayish-white concrete, of much firmness, which, occupying the whole sinus, the fossa ovalis above, and the expanded portion of the lower cava, choked the entire cavity of the auricle. The coronary veins, as before said, were all turgid; both cavas, and all the veins of the neck and thorax, full (fluid blood) to distention.

In this case there was old, partial hydrothorax. The acute seizure seems to have been carditis, more mischievous, perhaps, from complication with degenerescence of the valves. When the concrete in the auricle was formed, or what its sum, or kind of interference in the case, I am unable to say. It is the first considerable formation of the kind I have ever seen in that chamber.

CRITICAL ANALYSES.

Quæ laudanda forent, et quæ culpanda, vicissim
Illa, prius, cretâ; mox hæc, carbone, *notamus.*—Persius.

On the Diseases and Injuries of Arteries, with the Operations required for their Cure; being the Substance of the Lectures delivered in the Theatre of the Royal College of Surgeons in the Spring of 1829. By G J. Guthrie, F.R.S., Professor of Anatomy and Surgery to the Royal College of Surgeons, Surgeon to the Westminster Hospital, to the Royal Westminster Ophthalmic Hospital, &c.—8vo. pp. 416. Burgess and Hill, London, 1830.

By his previous works Mr. Guthrie has established his claim to the character of one of the most instructive practical writers of the day upon the subjects to which he has directed his attention. We therefore approach the consideration of the present work with more than ordinary expectation. Mr. Guthrie has shown that he is capable of making the best use of his experience; and we know that few surgeons can have had more extensive opportunities of investigating the diseases and injuries of arteries; for it is only in the dreadful, yet professionally profitable, scenes of warfare, in which he was long so actively employed, that such injuries can be very frequently seen.

Mr. Guthrie's object, in the first part of this work, is to demonstrate the value and importance of that portion of the pathological collection in the museum of the Royal College of Surgeons, which relates to the subject of aneurism, and to prove that the labours and researches of Mr. HUNTER anticipated nearly all the observations which have been made by his contemporaries and successors. In the subsequent part, the nature and treatment of wounds of arteries are more fully considered, and these important points are principally illustrated by observations and cases which occurred during the late war in Portugal, Spain, France, and the Netherlands. It may be proper to add, that the matter contained in this part has been many years announced as preparing for the press, but, although it has not been published, it has been annually promulgated in Mr. Guthrie's surgical lectures for the last fourteen years.

A brief account is first given of the structure and functions of arteries. The force exerted by the heart in propelling the blood into the arteries has been very differently estimated; but it was inferred by J. BELL and others, that the force with which the blood was propelled was so great as to be irresistible, and that no compression could be made on a large artery sufficient to stop the flow of blood through it. This error Mr. Guthrie exposed and refuted in his work on Gunshot Wounds in 1815.

"The power of the heart, whatever it may be able to raise in weight, is so trifling as to the force required to oppose it effectually, as to be very difficult of calculation. If the axillary artery be divided in the human subject, all that is required[1] to prevent hemorrhage, is to place the end of the fore finger accurately over the mouth or orifice of the vessel, and to retain it there with the least possible effort. I have made the experiment at least twenty times on man, and always with success, which induces me to consider the power of the heart as very trifling; being, in fact, only sufficient to propel the blood through open tubes possessing life, and certain indefinable powers which also influence its motion. That these indefinable powers reside principally in the capillaries appears to admit of little doubt, and when these are better understood, a more correct theory of the circulation of the blood may be established than we at present possess. The arteries of the human body, examined during life in every part capable of inspection, show no sign of alternate regular diminution and enlargement. The only observable motion is that of elongation and elevation, which is in fact that of the pulse. When the artery is pressed so as to diminish its canal, the sensation of a fluid passing through it can be felt, and this it is which gave rise to the idea of an alternate contraction and dilatation, which do not exist. An artery appears during life to be larger than it is after death, even when moderately injected. I have conceived that the arteries contain air in an uncombined state, which may assist in keeping them distended, and in facilitating the circulation; but I have not been able to prove it." (P. 8.)

Of the Alterations of Structure in Arteries. Arteries are capable, from their texture, of undergoing the various processes dependent on inflammation; but, by a wise provision of nature, without which the life of man would be continually in danger, they are not prone to suffer from it spontaneously. They are, indeed, rarely affected by it in the acute form, and then generally in consequence of injury, or by the extension of disease from continuity of parts.

"An artery will frequently be observed at the bottom of a large wound pulsating regularly, and continuing to exercise its proper functions, whilst all the surrounding parts are in a state of suppurative inflammation. It will sometimes even be seen stretched across a cavity formed by ulceration, surrounded and thickened by a quantity of lymph thrown out on its surface, yet retaining its functions. The inflammatory action has only extended to the cellular texture surrounding it, and to its outer coat, without implicating those within, and the canal only becomes obstructed when these partake of the inflammatory action. The three different structures forming the separable layers or coats of an artery, are not only intended for the due performance of the function of the artery, but constitute, by diversity of texture, a barrier to the progress of inflammation. When this in its acute form has extended to them all, obliteration of the cavity, ulceration, sloughing, gangrene, and mortification are the results, according to the nature and extent of the inflammation." (P. 10.)

The acute attacks of inflammation which affect arteries are of two kinds, phlegmonous and erysipelatous; a distinction Mr. Guthrie first made in regard to veins, and which is of the greatest importance as a pathological fact, death being the invariable consequence of erysipelatous inflammation, whether it take place in arteries or veins. The symptoms of inflammation of the great arteries are very obscure, and the disease itself is one of infrequent occurrence. Mr. Guthrie has seen every artery in the body that could be observed bounding and vibrating in such a manner, in a patient who had femoral aneurism, as actually to raise the bedclothes, when they were loosely applied to any surface immediately over them. He would refer this great and irregular action of the arteries to irritation rather than inflammation of their internal membrane; and it is admitted by the strongest advocates for an increase of pulsation in acute inflammation of the arteries, that in cases in which the preternaturally increased pulsation of the aorta was most distinctly present, no trace of inflammation has been discoverable after death. In children, at the commencement of eruptive diseases, and in hysterical and highly excitable females, we have often observed this excessive pulsation of the arteries, and we have no doubt that it depends upon a peculiar irritability of constitution, and that it is unconnected with inflammatory action. Erysipelatous inflammation of arteries has not been described as an idiopathic disease, but Mr. Guthrie believes that the inflammation which succeeds to an injury, and spreads along the internal coat of an artery until it reaches the heart, is of that nature, and that it is a most fatal disease. He has only verified its existence by dissection in three instances; and in all the patients died very quickly after the accession of the symptoms. In these cases the erysipelatous inflammation of the arteries was evidently caused by continuity of parts with those already inflamed; and in all of them the inflammation was a deep-seated disease, situated in the muscles and internal structure of the thigh, the skin being apparently unaffected.

The experiments of Laennec, Dutrochet, Bouillaud, and Andral, are referred to, to prove that the general tint of redness, which is sometimes seen to pervade the internal coat of all or most of the arteries, is dependent on imbibition, and not on inflammation. "This tinting of the arteries from imbibition is frequently found in persons who have died of putrid fevers, and was even supposed to give rise to a particular kind of fever; but it was also seen in consumptive persons who were long in dying, and in others whose blood did not coagulate. It is not accompanied, or has not been observed to be accompanied, by any particular symptom, from which the presence of such an alteration might be suspected." Upon this point Mr. Guthrie is supported by the opinion of Laennec, who expresses his doubts whether this kind of redness gives rise to general symptoms sufficiently constant or severe to indicate its presence. This eminent pathologist detected this colour of the arteries in subjects dead of very different affections, and he was never able to foretell its existence by any constant signs.* Calcareous matter is frequently deposited on the coats of arteries; and, wherever this may occur,

"It destroys the elasticity of the vessel, and renders the coats so brittle, that a ligature will frequently cut through the external as well as the inner ones. The coats of the artery are however so altered by it, and the change which preceded its deposition, that those healthy actions which take place in a sound artery, for its consolidation after a ligature has been applied, do not always occur; and when the ligature is separated, the artery is found pervious, and hemorrhage is the consequence. It was principally from the consideration of this circumstance, that Mr. Hunter was induced to place his ligature in aneurism considerably higher up on the artery than the tumor, with the hope of finding it there in a sounder state." (P. 25.)

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* Forbes' Translation of Laennec, third edition, p. 657.

It has been said that the internal coats of arteries have been found affected with black spots or tubercles, resembling those which are usually considered melanotic; but Mr. Guthrie has not seen any alteration of this nature. The coats of arteries are subjected to other depositions between them, which have been denominated, from their substance and appearance, atheromatous or steatomatous; but the distinctions between these terms, as applied to diseases of arteries, is by no means well defined or satisfactorily understood. There are few persons past sixty years of age, in whom some change has not taken place in the commencement of the arterial system. It is only, however, when it has proceeded so far as to cause some obstacle to the circulation, that the symptoms of disease present themselves, and are augmented by others, the result of derangement of the neighbouring organs.

" Difficulty of breathing on a moderate effort, such as going up a rising ground or a flight of stairs, first occurs, followed by palpitations in the chest, a severe cough and mucous expectoration, resembling asthma or chronic bronchitis; a gradual failure of strength and appearance, irregularity of pulse, sallowness of countenance, œdema of the limbs, and frequently dropsy or suffocation, lead to the termination of the sufferings of the patient." (P. 34.)

Of the preternatural dilatation of arteries, and of aneurism. Sennertus maintained that the internal coats of the artery were ruptured when aneurism occurred spontaneously, or that they were divided, and not reunited, when it took place from injury; and that in both the cellular or external coat was dilated. Scarpa has supported this opinion; but, says Mr. Guthrie, contemporaneous and later observations have proved, from dissection, that neither this nor any of the exclusive theories of the formation of aneurism are correct; there being several ways in which it may occur: a conclusion which surgeons in England might have arrived at thirty years ago, if they had taken the trouble to examine the specimens of aneurism in the Hunterian collection. To illustrate the various species of aneurism, different preparations in the museum of the College of Surgeons are referred to and described.

Mr. Guthrie suggests the following arrangement of the several species of diseases, and their consequences, which he thinks deserves some attention from future observers; aneurism having hitherto been considered to be equally a consequence of all.

"1. That a *preternatural enlargement* may exist with a natural appearance of the coats of the artery, subject, in all probability, to the loss of a part of their elasticity. In some instances, the coats of the artery are thinner than usual, principally at the expense of the middle coat; but, in the generality of cases, the external and middle coats are thicker, and the inner coats softer and more easily detached than is usual from the middle coat. When appearances of more positive disease show themselves, which is not always the case, they are the atheromatous, or the whitish or cartilaginous patch, attended by calcareous deposits in spots and scales; which latter more frequently lead, as the disease advances, to the honeycombed appearance of the inner membrane from ulceration, as in 367 A, page 78.

"2. *True aneurism* is more generally the consequence of the atheromatous or steatomatous disease affecting the middle coat. It may be combined with a cartilaginous state of the artery, and is not free from calcareous deposit; but the two latter appearances are not sufficiently marked to give the same character to the disease as in the preternatural dilatation.

"3. It is difficult to explain in what the difference consists, which exists between the state of the internal coat in *preternatural* dilatation and in *true* aneurism; so that the blood does not coagulate in the former, whilst it is deposited in concentric layers in the latter.

"It is possible that it arises from an excess of refinement in the distinction between the two diseases, and that there ought not to be, and perhaps there is not at a late period, any difference between a preternatural dilatation, bulging to one side of the artery, and a true aneurism, a state which is remarkably well shown in No. 411 H, page 62. At all events, preternatural dilatations of a large size, and departing from the course of the vessel from which they arise, do generally lose their distinguishing character of freedom from concentric layers of coagula, so that the distinction between them, under these circumstances, is lost.

"4. A *false aneurism* is formed through the rupture of the internal and middle coats of an artery, followed by the dilatation of the outer one; or may be merely an advanced stage of a true aneurism, in which the inner and middle coats have been distended or affected at one part, so as to have been removed. This may also take place with the outer coat, in which case the cellular sheath forms the aneurismal sac. In the same manner this may be afterwards removed when it comes in contact with bone; subsequently the bone itself is absorbed, leaving only the superficial fascia, and ultimately the skin as its external boundary, the removal of which gives rise to death by hemorrhage. This kind of aneurism has also been called consecutive, or external mixed false aneurism.

"5. A *rupture* of the whole of the coats of an artery does not depend on the absence of a cellular sheath, or the non-interposition of a sufficient quantity of cellular tissue between the external elastic coat of the artery, and any superficial covering which it may receive from the inner serous membrane of the pericardium, the pleura, or the peritoneum, but, on a particular disease of the artery commencing with the middle and inner coats, which leads to ulceration and rupture, and not to distention. The opening may be either a rent or a hole of various dimensions. In parts where there is a quantity of cellular tissue, it may yet form a *spurious* aneurism. In other parts it gives rise to death by hemorrhage.

"6. An aneurism in young persons is generally the consequence of some accidental injury or disease of the part in which it is situated, and of which the rest of the arterial system does not partake. A preternatural enlargement is more common to elderly persons, and is usually accompanied by a general derangement of the arterial system, and frequently by aneurism." (P. 84.)

In briefly describing the causes of aneurism, Mr. Guthrie remarks, that the predisposing cause has often been attributed to the effects of syphilis, or mercury, or both; but he does not believe that there is any solid foundation for this opinion. "So many persons have all the different diseases to which arteries are liable, who have never had the disease or the antidote, and so many have had the lues venerea and taken large quantities of mercury, without suffering from more disease of the sanguiferous system than their neighbours, that it does not appear to me philosophical to admit such a predisposing cause, merely because the poor who enter hospitals have been found in many instances to have suffered from both."

There are three ways in which an aneurism may proceed to its cure by the unassisted efforts of nature: by coagulation of its contents, by sloughing, or by an accidental pressure of the sac upon the artery. In aneurism, a soft coagulum is formed as soon as the dilatation is distinctly marked, and coagula are soon deposited in concentric layers, which frequently fill up a considerable part of the sac, and in some instances nearly the whole.

"Where the artery is large and the current of blood rapid, as in the aorta, a small coagulum falling into the canal of the vessel could hardly resist its impetus, or, if it did, it would produce nearly instant death. The aorta is therefore never obliterated by this process, but by the slower one of inflammation of its internal coat, effusion of coagulable lymph, and narrowing of the canal; accompanied by a concomitant enlargement of the collateral vessels, so that the circulation may be carried on when the artery is obliterated. This has been known to take place in the aorta, and is the common course of proceeding in every other artery that has sustained an injury, or in which inflammation of an acute kind has been set up. In smaller vessels in the extremities, which are not kept clear by the rapidity of the circulation, two natural processes favoring the cure of aneurism by coagulation have been observed to take place. The first is the enlargement of the collateral branches to such extent as to enable them to maintain the circulation, if the main trunk be suddenly rendered impervious. The second is the effort made to close or shut up the lower openings from the aneurism, or those most distant from the heart: an effort which has been hitherto scarcely considered as a natural one, but which is frequently attempted, and often with success." (P. 89.)

The Hunterian collection supplies several instances of all the openings into an aneurism, save the upper one, having been closed during life; and Mr. Guthrie thinks these specimens establish the fact that, in aneurism of the extremities, nature resorts to this method as a part of the curative process; and that, although she succeeds in effecting it, still more is requisite to complete the cure, by the filling up and obliteration of the tumor. These preparations also show that, when the lower end of the artery has been obliterated, the aneurism has not ceased to increase.

"When the blood in an aneurismal tumor is coagulated in consequence of the impetus and supply from above being nearly or completely cut off by ligature, the ultimate non-obliteration of the sac is so rare an occurrence as never to be expected to take place, although it may be, and often is, delayed for a considerable time. It seems to me equally certain that the cutting off the passage of blood through the lower or further end of the tumor, neither places the sac nor the blood in it under similar circumstances; and that the same processes cannot be expected to occur, unless under particular circumstances which are not at present understood. For instance, it does not appear that the coagulation of the whole of the blood in an aneurismal tumor is the necessary consequence of the closure of the lower opening; and that, as long as this coagulation does not completely take place, and the impetus of the blood remains, the tumor will go on increasing. Its increase may receive a momentary check from the closure of the lower opening, but more is required to complete the cure. This subject will be further considered hereafter: at present it will be sufficient to refer to the instances in the Hunterian collection, in which the lower or further extremity of the artery was closed by nature, without producing a beneficial change in the aneurism. Others are to be met with in almost every author who has written on the subject, as well as in many cases which have been published separately; but the occurrence has always been considered as accidental." (P. 92.)

The spontaneous cure of an aneurism by its removal through sloughing, or sphacelation, was known to the earliest authors: Severinus, Lancisi, and Guattani, each give instances of this kind. Mr. Guthrie has seen three cases, and in each the disease was in the groin.

"The best case which I know of recovery by sloughing was in the instance of a soldier, under the care of Mr. Albert, in the York Hospital. The tumor was of a large size, and extended above as well as below Poupart's ligament. It pulsated violently; the walls were thin, the surface inflamed. At last the integuments on the apex of the swelling became of a livid colour, pulsation ceased, and the whole tumor became black and flaccid. A small opening formed in the centre, from which fetid coagulated blood issued. The mortification extended around the circumference of the tumor in every direction, and beyond it, until the whole sloughed out. Several pounds of coagulum were discharged, after which the surrounding parts began to take on a healthy action, granulations sprang up, and the part ultimately healed. (P. 97.)

In the other two cases the patients died; not, however, during the sloughing process, but subsequently, being worn out by the continuance of the discharge, and the irritation arising from the ulceration having extended to the hip-joint.

"The artery was obliterated above and below the ulcerated part, and was deficient in the situation of it. It is fair to suppose that both these patients would have recovered, if ulceration had not implicated the ligamentous structure of the hip-joint. Mortification is, however, so dangerous and uncertain a process, so prone to recommence when it has become stationary, and to spread again with the greatest rapidity, that the attempt at a cure by sphacelation must always be viewed with the greatest anxiety, and, if possible, be anticipated by the necessary operation, when situated in parts admitting of its performance. The operation should never be had recourse to after mortification has begun. If the patient dies of the mortification, the operation is useless; and, if he survives it, the operation is unnecessary; for the artery must and will be obliterated for some distance above the aneurism, by the process of inflammation, which necessarily takes place in the separation of the dead parts from the living; and it may, by inflicting an additional injury, prove destructive." (P. 97.)

Accidental pressure of the sac upon the artery, producing the cure of aneurism, has never been seen by Mr. Guthrie; neither has it, he says, been proved by dissection to have taken place. He considers it, therefore, as a theoretical opinion as to the manner in which a cure of aneurism may be effected. Mr. HODGSON, however, mentions some facts tending to show that aneurism has been thus spontaneously cured.* There are several preparations in the Hunterian collection which show that different arteries must evidently have suffered considerable compression, under which *they have altered their direction;* but there is only one in which the artery is obliterated: it is No. 381, an aneurism of the left carotid.

In the next sections, the symptoms of internal, and the symptoms and diagnosis of external aneurisms are detailed. Mr. Guthrie's remarks upon these important points are highly interesting, and we regret that our limits confine us to the following extract:

"There are few surgeons in London who have not seen one case at least of bronchocele, which has been mistaken for carotid aneurism, from inattention to the motions of the tumor, as dependent on those of the larynx. A gentleman, an adjutant of militia, came some few years ago to me, with an enlarged lobe of the thyroid gland, to be operated upon for carotid aneurism: it was cured by iodine. Twice have enlarged and suppurating absorbent glands, nearly in a similar situation, been brought to me for aneurism; and twice have I removed a tumor adhering to the radial artery, which was considered to be of a similar nature. The same thing happened in the groin; and it is almost unnecessary to say that, from inattention, both herniæ and aneurisms have been opened for common suppurating abscesses. I saw this mistake once made in hernia with the best effect. The surgeon punctured the tumor, which was incarcerated, hard, and painful, with a lancet, (fortunately the opening was but a puncture,) and was very much alarmed to find a watery, fetid fluid evacuated, followed by a little fecal matter. He closed the opening by a piece of adhesive plaster, placed a compress upon it, and the patient recovered without any further bad symptoms.

"Pelletan, among other authors, gives two instances in which aneurisms of the axillary or subclavian artery were opened, and the patients died of hemorrhage in consequence. In one case the parts were carefully dissected, and the axillary artery immediately below its dilatation was in so impervious a state as not to admit the smallest probe, and looked like a ligamentous cord. At the bend of the arm it resembled an artery in appearance, but its canal was so contracted that nothing could be introduced into it. If the engraving given by Pelletan represents the disease correctly, it was a case of preternatural enlargement, with a consecutive false aneurism. Scarpa, and most other authors, notice similar unfortunate accidents." (P. 114.)

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* On Diseases of Arteries and Veins, p. 107.

On the medical Treatment of Aneurism. The medical treatment of aneurism is now almost entirely confined to those which are internal; or to external ones in which an aneurismal diathesis is presumed to prevail, rendering the cure of one tumor by operation useless, when others of more importance are known to exist, beyond the reach of art. It is only when external aneurisms are complicated with disease of the organs within the chest or abdomen, or are attended by anomalous symptoms of derangement in those parts, or are numerous, that this diathesis can be fairly said to exist; and that internal or palliative treatment is to be preferred to the external or curative process by operation. The internal treatment has not undergone any improvement since the time of its inventors, Valsalva and Albertini. The practice has not maintained its ground as a curative process, but has fallen into disuse from its severity.

"It consists, first, in placing the patient in a recumbent position, and keeping him on as small a quantity of the least nutritive food and drink as is consistent with the support of life. Secondly, in abstracting blood from day to day, first in large quantities, and afterwards in smaller ones, until the force of the circulation, and the circulating medium itself, are reduced to the lowest possible degree consistent with the safety of the patient. Thirdly, the administration of such remedies as will assist in reducing the action of the heart and arteries; whilst they act at the same time on their intimate structures, inducing in them a more rigid contraction and a healthier action: digitalis, acids, and the preparations of lead, are those most relied upon for these purposes. Fourthly, the application of cold externally, by means of ice, snow, or evaporating liquids or preparations; and the use of bandages, where their application is admissible." (P. 122.)

In the prosecution of this plan, the constitution of each person must of course be studied, and his powers of resistance well calculated, so that they may not be reduced below that level from which they cannot recover. If no improvement take place in the aneurism, the treatment is not to be persisted in.

"Digitalis is a remedy which may be given with advantage in the first instance, but it is one which not only lowers the action of the heart in a remarkable manner, but which will also sometimes put a stop to it altogether. I have known it do this when given in large and repeated doses for the cure of tetanus; and I am therefore not disposed to recommend its use after the action and power of the heart have been considerably diminished." (P. 124.)

The mineral acids and the superacetate of lead have probably been recommended because they have been known to do good in acute and chronic hemorrhages. Mr. Guthrie has not seen the mineral acids exert any very powerful influence in these cases; but he has often found the superacetate of lead a most valuable remedy in both, when combined with opium. In the proportion of a grain to a quarter and to half a grain of opium, three or four times a day, he has found it very useful, and he has given it in much larger doses without any bad effect. The American practitioners employ this medicine in larger and more frequently repeated doses than are common in this country. Dr. DEWEES,* for example, recommends it in uterine hemorrhage, in two or three grain doses, guarded with opium," every half hour or hour, according to circumstances. If the stomach is irritable, he advises it to be given per anum: "twenty or thirty grains may be dissolved in a gill of water, to which will be added a drachm of laudanum." To the application of pounded ice in external aneurisms, Mr. Guthrie is not very favorably inclined. He states, however, that instances are recorded by Larrey, Ribes, and others, in which it seems, when steadily persevered in, to have effected a cure. "It is said, also, that, under a continued use of it, mortification of the part has supervened.

On the collateral circulation. By this term surgeons understand, in cases of aneurism or wounded arteries, the means whereby blood is sent to the extreme parts of the body or to a member, when the supply through the principal trunk or vessel is cut off, either by disease, injury, or ligature. In the present day it is believed that the collateral circulation is sufficient in every case to support the life of the extremity; and, when it does not do so, the failure is attributed to some accidental defect, rather than from any regular incapability on the part of nature. This fact was long doubted; but Mr. Guthrie satisfactorily shows that surgeons of former times placed no confidence in the power of the collateral branches to support the limb when the main trunk was cut off, because their mode of operating, and their subsequent treatment of the wound, were not such as is now adopted, and did not afford the patient a fair chance of recovery.

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* DEWEES' Midwifery, p. 412. Upon this subject we may also refer to the paper of Mr. GARDNER on Lead, at page 20 of this Number.

"The great success which has attended the practice of the present day in the operations for aneurism, has, however, led to an overweening confidence in the powers of the collateral circulation, which it assuredly does not under all circumstances possess. The older surgeons did not perceive, in their full extent, the disadvantages under which their operative processes laboured: modern ones have overlooked, in the consideration of this subject, the various advantages they, on the contrary, enjoy in the cases of aneurism on which they have operated. They adopted hastily, in consequence, the theory of the operation for aneurism in the treatment of wounded arteries, not only with relation to collateral circulation, but to other more important points in which it was not admissible. The result of this practice has been a want of success nearly as marked in cases of wounded arteries as it was the reverse in aneurism. The causes of this failure also require explanation." (P. 130.)

The collateral circulation is more perfect, more active, in young persons, during the increase or growth of the body, than it is either at maturity or in the decline of life. Every action is carried on, in consequence, with more facility and certainty, and a greater dependence can be placed both on the powers of the part and of the constitution, than at any other period. Observation has proved the correctness of this statement; and in cases of aneurism, or of wounded arteries, in which the principal or only trunk has been cut off, the collateral branches have been found to be more efficient between the ages of puberty and of the first period of manhood, than at any subsequent time of life. In old age there are many reasons why the powers of the smaller arteries should be comparatively defective, which Mr. Guthrie does not deem it necessary to dwell upon, as the fact is admitted. The important point is not, however, alone referable to the time of life in which the operation is performed, but to the nature of the disease or injury, and the period of time after the reception of one or the commencement of the other that the operation is done, and the call is made on the collateral circulation to maintain the life of the part. Dissection after the successful performance of the operation for aneurism proves two points: that arteries known to exist have become very much enlarged, when compared with those of the opposite side; and that others, not discoverable in the sound limb, have been developed in a similar manner, and both together to such an extent as will nearly, if not quite, compensate, by a circuitous route, for the loss of the direct supply. The principal object of inquiry is, do these vessels always exist? or at what period of time do they begin to enlarge, so as to enable them to carry on the circulation in the manner in which it is presumed to be done?

"The fact of the development of the vessels having taken place after the commencement of the disease, or the reception of the injury, being established, the question of time is now to be considered. Does it commence with the disease, take place during its progress, or only after the operation? I am of opinion that the collateral branches begin to enlarge shortly after the commencement of the disease, as a part of the curative process which nature endeavours to set up in most instances; the essential points of which are, in an extremity, 1st, the obliteration of the artery above and below the tumor; 2d, the coagulation of the blood within it; 3d, the enlargement of the collateral branches above and below it.

"When a limb is lost through mortification, as a consequence of a division or obstruction of the principal artery, it usually takes place after the infliction of a sudden injury, in consequence of the collateral branches not having had time to enlarge." (P. 138.)

Mr. Guthrie adduces various facts which show that the collateral circulation is not in the same stage of preparation, in a limb suffering from a divided artery, as in one in which an aneurism has for some time existed; and they also show why mortification is more common after wounded arteries than after operations for aneurism. From these facts arise three practical deductions:

"1. That the theory of the operation of aneurism, as dependent on the collateral circulation, cannot be applied with safety to aneurisms dependent on wounded arteries.

"2. That it is inapplicable to wounded arteries.

"3. That the length of time a spontaneous aneurism has existed is of consequence, as connected with the collateral circulation; although an aneurism should never be allowed to attain that size which may render it injurious to the surrounding parts.

"I shall remark, in conclusion,

"1. That the collateral vessels are at all times, and under all natural circumstances, capable of carrying on the circulation in the upper extremity, whatever disease or injury may affect the principal trunk. Whenever the reverse takes place, it is an exception to the general rule.

"2. That, after operations for aneurism in the lower extremity, the collateral branches are almost always equal to carry on the circulation through the limb.

"3. That, when the principal artery of the lower extremity is suddenly divided, without any previous disease having existed, mortification is not an uncommon occurrence, and is more likely to take place in old than in young persons.

"4. That when, under such circumstances, the principal vein is also divided, mortification seldom fails to be the consequence." (P. 140.)

On the surgical treatment of aneurism. GUATTANI first recommended general compression of the limb in which an aneurism was seated, but the practice has been abandoned from its want of success. Direct or immediate compression on the artery is effected in two ways: 1, by pressure made on the artery through the integuments, by means of a compress, or by a pad affixed to a spring, which confines the pressure to the spot immediately over the artery, without impeding the collateral circulation; 2, by laying bare the artery, and compressing it with a spring or forceps, or by the application of a temporary ligature, to be removed at the expiration of a certain number of hours.

"The application of pressure by means of a spring pad has been often tried, and has sometimes, although very rarely, succeeded. The process is long, the pain great, and there is danger of the part sloughing. The pain is, however, so great, that few persons can be persuaded to submit to it; and those surgeons who have tried it once will not again put it in competition with the operation. Mr. White, one of my colleagues at the Westminster Hospital, and who is an excellent surgeon and an able operator, tried it in a case of popliteal aneurism in a woman, by means of a newly-invented spring, supposed to possess peculiar advantages. The woman bore the pain heroically for five days, but the parts compressed sloughed deeply. The cure was completed; but the pain, danger, and risk incurred were infinitely greater than any which could have been sustained from the usual operation. I watched the progress of the case with great attention, and will not be easily induced to use that or any other instrument for such a purpose.

"The application of a solid instrument to the artery, for the purpose of compressing it for a certain time until inflammation shall have taken place; or that of a temporary ligature, to cut through the inner coats of the vessel, and then to excite inflammation; have been tried in different ways by a variety of surgeons. The forceps, pincers, or presse-arteres, are the oldest inventions, and the worst of the two; but both have been found inferior to the single small round permanent ligature, and have been consequently abandoned." (P. 142.)

Mr. Guthrie clearly shows the futility of the attempts which have been made to wrest from John Hunter the merit of having first suggested the operation for aneurism, as it is now practised, and the principles upon which it is founded. If this operation and its principle be compared with those performed by Anel and Desault, there will be seen to be little resemblance between them. The operation performed by Anel was forgotten, and it was done not on a diseased, but on a wounded artery, and *close* to the swelling. Desault's was done on a diseased artery, was unfortunate, and was so far considered as an unsuccessful experiment that it was never repeated by himself, although he lived many years afterwards: on the contrary, he adopted, instead of it, the operation recommended by Hunter. The theory of the operation of Hunter, as performed in the present day, for aneurism, and applied to all the arteries of the body, is

"1. That the ligature be applied as far above the aneurismal sac as the first large branch or branches given off from the trunk of the vessel; and, if necessary from disease, even above them, so as to secure its application, if possible, on a sound part of the artery.

"2. That the aneurismal sac will retain any blood which may be in it at the time of the operation, or any that may come into it afterwards, until that blood has coagulated, and filled up the cavity of the sac, and the orifices of the vessels leading into it; a result which will inevitably take place, unless the collateral branches communicating with the artery above the sac are so large as to be able to pour the blood into it, with an impetus derived directly from the heart.

"3. That the collateral branches, even when some have been cut off above the sac, are yet competent to carry on the circulation in the extremity.

"4. That after the circulation through the limb has been re-established, and the blood been coagulated in the sac, the absorbents will remove it, and reduce the sac to the state of a ligamentous and impervious cord, and restore the limb nearly to its natural state." (P. 151.)

Mr. Hunter did not expect that, by this mode of operating, the supply of blood to the aneurism would be completely cut off: on the contrary, he only says, "The force of the circulation being thus taken off from the aneurismal sac, the progress of the disease would be stopped; and he thought it probable that, if the parts were left to themselves, the sac, with its contents, might be absorbed, and the whole of the tumor removed; which would render any opening into the sac unnecessary." Two cases are quoted by Mr. Guthrie to show the failure of this expectation: the first led to amputation and death; the second, under the care of Mr. Briggs, to a mode of treatment which was successful, "and cannot fail to attract attention, as well as to be imitated in practice."

"James Mack, carpenter, aged thirty years, in February 1829, felt pain in the toes, and ankle, and knee, and afterwards a swelling like a pigeon's egg in the ham, which gave him great pain, particularly at night, and pulsated like his heart. The operation was performed on the 6th of March, by Mr. Briggs. The ligature came away on the 27th, the pulsation in the tumor ceased, and it diminished very much in size. It was only in June he was able to go to his work, when the swelling had entirely disappeared. In September it began to appear again with pulsation, both the swelling and the pulsation being soon greater than before. A compress was applied with a bandage on the part and on the leg, which made it worse. He then applied a hard compress, being in fact a narrow roller, four inches in length, on the inside of the thigh, just above the knee, and above the inner hamstring muscles, which was firmly retained in that situation night and day. This gave him relief by taking away the pain, which was principally felt in the toes and ankle. This compress he wore for two months, at the end of which time the pulsation had ceased, although the swelling had not entirely subsided. He has gradually improved ever since, although he has still pain in the back of the leg, and, on walking, he feels the foot, and particularly the great toe, numb and cold. He cannot quite straighten the limb, and walks with a little halt. There is no appearance of the swelling now, one year after the operation." (P. 157.)

In our succeeding Number, we shall terminate the analysis of this interesting work. We could not have done justice to it in one article.

Observations on the Disorders of Females connected with Uterine Irritation. By Thomas Addison, m.d. Assistant Physician and Lecturer on the Theory and Practice of Physic at Guy's Hospital.—8vo. pp. 96. Highley, London, 1830.

As these observations were originally delivered as a clinical lecture to the pupils at Guy's Hospital, the author has, of course, confined himself to a brief and practical discussion of the subject he has selected. Upon such an occasion, speculative doctrines would have been out of place. The object of this lecture is to describe the morbid effects produced upon the general constitution, and upon particular parts of the body, by continued uterine irritation. By the term irritation, Dr. A. implies a disturbance in the endowments or functions of a part, without either inflammation or organic lesion being *necessarily* present. In thus characterizing uterine irritation, he does not deny that it may be coexistent with, or even give rise to, inflammation or organic lesion; but, speaking generally, he is inclined to the opinion that it is found to exist altogether independently of either of these states.

"The most frequent symptoms of uterine irritation are *irregular menstruation*, the discharge being preceded or accompanied by pain in the back, loins, or thighs, or in the region of the uterus itself, and attended with forcing or bearing down; the *discharge being in excess* either in point of mere quantity or in continuance, or in recurrence; *tenderness of the womb itself upon pressure* made either externally or *per vaginam*, a tenderness in some instances so great as to interfere with the privileges of matrimony; and, lastly, *leucorrhœa*. The most frequent symptoms, however, are, unquestionably, *painful menstruation* and *leucorrhœal discharge*, although the former is often the only symptom acknowledged by the patient herself." (P. 11.)

The most powerful predisposing cause of uterine irritation is constitutional irritability, especially in persons naturally of a delicate frame of body. Sedentary and luxurious habits, late hours, and passions of the mind, are also enumerated as predisposing causes, as they tend either to produce or to increase morbid susceptibility. The exciting causes are, active exertion of any kind during the flow of the menses; frequent child-bearing, especially if the patient suckle her children herself; excessive venery, and indeed venereal excitement of any kind. From the continuance of uterine irritation, various morbid conditions of the general system and of particular organs result, which vary in kind and degree, according to differences in particular constitutions, and according to the susceptibility of individual organs.

"The first complaint usually made by a female suffering from this irritation, is of feeling *nervous*, probably with a disposition to be low-spirited; but if, in a well-marked case of the kind, you proceed to feel the pulse, and especially if it be your first visit, the chance is that you will perceive a distinct tremor of the hand, and a remarkable acceleration and sharpness of the pulse, evidently arising from mental agitation; a degree of mental agitation so great, in a naturally susceptible female, that if you attempt to soothe or encourage her, she will begin to sob, her lips quiver, and she bursts into a flood of tears. Even after she has sufficiently recovered her self-command, she experiences considerable difficulty in describing her feelings and sensations, and often appears to dispair of satisfactorily communicating to you the nature of her ailment. She tells you that, without any assignable cause, she gradually declined in health and spirits; that she had lost her wonted alacrity, has become indolent, and is easily fatigued by comparatively slight exertion; that she is readily flurried; that her heart often beats, flutters, or palpitates; that the impressions made upon her mind are altogether disproportionate to the causes producing them; that she is very prone to weep, and occasionally experiences sudden and transitory feelings of alarm and dread, especially during the night, without being able satisfactorily to account for them; in short, that both body and mind are in a morbidly sensitive condition, whilst general distress is strikingly depicted in her pale or dejected countenance. If you proceed in your inquiries to ascertain the state of the uterus, you are perhaps informed that she is regular; but if interrogated more narrowly, it will almost uniformly be found that she suffers pain, either before or during the flow, in the back or loins, and that in the intervals she is troubled with leucorrhœal discharge. To these inquiries she gives a reluctant reply; will often, perhaps from delicacy, conceal the truth, or, if she acknowledge it, will probably add, 'Oh, that is of no consequence; that is not my complaint; I have long been accustomed to that, and it does me no harm;' and then winds up the case with telling you that she has taken a load of tonic medicines without benefit. If you ask her whether such questions were ever put to her before, you are generally answered in the negative. Such a case as this, with slight modifications, is of common occurrence, yet it most frequently happens that, with the general disorder, we have decided derangement of some internal organ or organs; and, of these, the organs of digestion appear to be almost uniformly the first to participate: indeed, the derangement of the digestive organs, to a greater or less extent, is so commonly associated with the general affection I have described, that one cannot but conclude that the general affection is most materially influenced, if not in part produced, by it. It is sufficient, however, for our purpose to know that the exalted susceptibility of the general system and this deranged condition of the first passages, are very commonly co-existent, however they may stand in the relation of cause and effect." (P. 14.)

There is frequently a tendency to flatulency, and sometimes the patient suffers from repeated vomiting; paroxysms of hysteria, also, are not unfrequent. In a practical point of view, the most important effects of uterine irritation are pains, varying in degree, in different parts of the body, but especially the abdominal viscera.

To these symptoms Dr. ADDISON particularly refers, and the subject is one of peculiar interest to the inexperienced practitioner, inasmuch as he is very likely to suspect the existence of local inflammation when it is not present, and consequently to institute what he conceives to be an appropriate treatment, by free bleeding, &c., which will generally inflict positive injury upon his patient, without much chance of relieving her sufferings. We have so frequently touched upon this subject, that we do not think it necessary to dwell more particularly upon the observations made by Dr. Addison: he corroborates the opinions which Dr. MARSHALL HALL, and various other writers, have advanced upon the same subject. We must observe, however, that, in delicate and highly susceptible females, who are liable to hysterical affections, these wandering neuralgic pains (for such we presume them to be,) are very common, when there is no evidence whatever of uterine irritation.

Dr. Addison observes, that pain affecting the abdomen generally is by no means of rare occurrence, and that in some instances it so closely resembles general peritonitis as to be mistaken for and treated as that complaint. "The pain is complained of over the whole of the belly, and the slightest touch in many instances cannot be borne, such is the extreme sensibility and tenderness of the parts." This is very true; but we would add, that if, from the "slightest touch," firm pressure be gradually made in such cases, the patient no longer complains. The increased sensibility appears, in fact, to be superficial, and hysterical women will often shrink from slight pressure being made on the surface of the body, when they will bear, without complaint, any part to be firmly pressed upon.

Dr. Addison offers some judicious remarks upon the diagnosis, or the means of distinguishing the painful or neuralgic affections he has described from the inflammatory disorders to which they often bear so close a resemblance, and for which they are so repeatedly mistaken.

" Knowing then that such cases are of frequent occurrence, whenever a female complains to you of pain under the left breast, with or without palpitation or pulsation of the heart; of pain in the right hypochondrium; in the situation of the left or right colon; or of acute pain generally over the whole belly, or in the region of the kidneys or bladder; always be upon your guard, and if, on inquiry, you find a few or many of the constitutional symptoms I have described, together with indications of uterine irritation, as shown by pain in the pelvis, in the loins, or in the thighs, before or during the catamenial flow; by too frequent or too profuse menstruation; or by leucorrhœal discharge; I say, when you find such an assemblage of symptoms and circumstances, your suspicions will amount to a high degree of probability that the complaint is not of an inflammatory nature. The comparative absence too of fever, the appearance of the tongue, and the state of the surface, will materially assist you in the diagnosis; although it must be confessed that peritoneal inflammation often exists with but little developement of the general symptoms regarded as characteristic of the phlegmasiæ; whilst, on the other hand, the painful affections I have been describing are not unfrequently attended with an accelerated and vibrating, or even a hard pulse, a hot skin, and furred and slightly brown tongue. Generally speaking, however, the pulse varies much in the latter, and seldom has much hardness in its beat, although, from the irritability of the heart, it is sometimes sharp or jerking, whilst the skin is usually warm, rather than hot, and with a disposition to moisture; and, lastly, the absence of many, or of some of the symptoms of the phlegmasiæ simulated, will go far to complete the marks of distinction." (P. 30.)

That the practitioner, who infers there must be inflammation because there is local pain, will be constantly committing the most egregious blunders, we can readily conceive; but we really think that, in the great majority of these cases to which Dr. Addison refers, but a moderate share of practical experience and judgment will be required to discriminate between these attacks and visceral inflammation. The chief distinction which we would insist upon is the occurrence of hysterical symptoms, as they are called. It has been very truly said by Dr. Marshall, that symptoms of hysteria rarely, if ever, appear while the active inflammation of a vital organ is going on.* The manner in which the patient expresses her suffering is also generally quite different from that which is seen when local inflammation is present. In the latter case, she moves gently and with dread, her countenance at the same time betraying great anxiety and suffering. During these neuralgic or hysterical pains, on the contrary, the patient screams out suddenly and vehemently, rolls about her bed at one moment in the greatest apparent anguish, and at the next becomes perfectly tranquil. In some of these cases, indeed, local inflammations may be so closely simulated as to lead to doubt and perplexity, even with experienced and observant practitioners, but our experience teaches us that such instances are but of very rare occurrence.

Treatment of uterine irritation, and the disorders connected with it.

"The indications are, 1st, to correct the morbid condition of the uterus. 2dly. To remove or mitigate the violence of troublesome symptoms in any individual case; and 3dly. To restore tone and vigour to the general constitution." (P. 33.)

In thus laying down the indications of cure, it will be observed that Dr. A. has in some measure reversed the ordinary mode of procedure: he believes that the condition of the uterus, to the continuance of which he ascribes the various disorders he enumerates in his lecture, has generally been overlooked, or at least, if observed, it has only been in those cases which have had some of the characteristic symptoms present, in a strongly-marked degree, such as excessive or very painful menstruation, or profuse leucorrhœal discharges; "and even then the condition of the uterus has been usually looked upon as a mere effect or consequence of the nervous or hysterical state of the entire frame; or, in other words, it has been considered as merely participating in an universally morbid sensibility."

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* Dr. MARSHALL HALL on some Diseases of Females, p. 114.

That uterine irritation occasionally gives rise to the symptoms mentioned by Dr. A., we readily admit; but we believe that, in general, the uterine disturbance must be regarded, not as the cause, but as the effect, of local or general derangement of health. Dr. Addison, however, takes a different view of the subject, and modifies his practice accordingly. With him the principal indication is to correct the state of the uterus, "although, of course, the second indication, that of allaying troublesome symptoms, must often go hand in hand with, or, in aggravated cases, even take precedence of it." Dr. A. admits that local or general depletion in plethoric subjects, and anodynes and laxatives, in most cases of uterine irritation, may be serviceable and necessary;

> " Yet, speaking from experience, this object, this grand object is secured with much greater certainty, and much more speedily, by applications made directly to the uterus itself, and parts adjacent. The applications to which I allude, are cold astrigent washes, injected per vaginam by means of a proper syringe. The ordinary womb syringe answers the purpose exceedingly well, but one of any convenient shape may be used, provided it be sufficiently large to contain from four to six or eight ounces of fluid. The injection should be introduced with such a degree of force as shall secure its application to the upper part of the vagina, and to the os uteri; and the operation should be repeated two, three, or four times a day, according to the circumstances of the individual case." (P. 36.)

The mineral astringents are preferred, as they do not stain the patient's linen, and are therefore not so much objected to. The wash Dr. A. most frequently employs is the Liquor Aluminis comp. of the London Pharmacopœia. This practice must be persevered in for a length of time, according to the obstinacy of the case, and the effects it produces. Before and during the menstrual period, the use of the injection must be discontinued, and the patient must be cautioned against using violent exertion or undergoing any unusual fatigue at that time, as nothing so completely thwarts the object of the practitioner as imprudence committed whilst the irritable uterus is performing its functions.

> " When the uterine irritation is characterized by frequent and

excessive flow of the menses, I have directed the patient to remain quiet in or on the bed, and to desist from the wash during each recurrence; not having ventured to carry the practice to the extent of attempting to restrain even such excessive discharge by local astringents. But when there is decidedly painful menstruation, or pain felt in the womb, loins, or thighs before the appearance, although there be no leucorrhœal discharge whatever in the interval, I nevertheless apply the cold wash to such subjects, precisely in the same manner as if such leucorrhœal discharge were present, on the principle that this leucorrhœal discharge is itself a mere symptom or effect of the state of uterus and neighbouring parts, which I am anxious to remove." (P. 38.)

The second indication must, of course, be variously fulfilled, according to the circumstances of each particular case. Bleeding, especially in large quantities, and active and debilitating purgatives, are not advisable for such patients, as they are always in a weak and irritable state. Castor oil, when it agrees with the stomach, will be found more generally serviceable than any other purgative. Sometimes the warm and resinous purgatives may be prescribed with advantage. When the patient is troubled with flatulence, ammonia with magnesia, to which may be added a little tincture of hyoscyamus or hops, will be given with advantage. If, with more or less of the general symptoms, there is pain under the left mamma, or in any of the other situations pointed out, mild sedatives, with or without ammonia, according to circumstances, are recommended; the uterine irritation being attended to at the same time, and the injection before mentioned being employed. Dr. Addison justly laments that this local pain is frequently mistaken, and the patients "blooded, cupped, and blistered, and anointed with acrid ointments, for months in succession, not only without relief, but with the most serious injury to their general health, whilst the uterine irritation has been altogether overlooked."

In pointing out the non-inflammatory nature of this affection, it is not, however, contended that bleeding, cupping, or blistering, is improper in every instance. "On the contrary, in plethoric subjects, one or two general or local bleedings may occasionally prove of service." When the pain shifts its seat from time to time, Dr. A. limits his *external* remedies generally to hot anodyne fomentations. The internal exhibition of opiates will often be required; and if the pain seizes the track of the colon or the stomach, and is accompanied by severe spasm, a full dose of Liq. Opii Sed. or even a full dose of Ether. The practice of giving tonics and stimulants in cases of excessive menstruation, on the erroneous supposition that such discharges are the result of weakness, is deprecated: here vascular excitement is to be allayed by moderate depletion and purging, and irritation to be allayed by anodynes and rest. Menorrhagia sometimes, however, depends upon debility and want of healthy tone in the general system, and then a tonic plan of treatment is demanded.

The third indication is to restore strength and vigor to the general habit. As Dr. A. considers the local uterine irritation to be the source from whence the whole mischief proceeds, he, of course, pays especial attention to the removal of it. The constitutional symptoms are very various, and must be treated upon general principles. In further illustration of his views, Dr. A. relates several instructive cases.

COLLECTANEA.

Floriferis ut apes in saltibus omnia libant,
Omnia nos, itidem, depascimur aurea dicta.

PATHOLOGY.

Disease from the use of Iodine, and the Disorders which arise from the long-continued Employment of that Remedy. By Dr. Jahn. (*Journ. Comp.*)

Since the researches of Orfila, the injurious effects which arise from too large a dose of iodine are well known. The great irritation produced by the vapours of this substance, both upon the eyes and aerial passages, is also proved:* but there is one point upon which there still exists some diversity of opinion, namely, the changes effected upon the different tissues by the long-continued use of preparations of iodine. Coindet, Gairdner, Seiler, and others, have given descriptions of a cachetic condition produced by this remedy, which does not coincide with the experience of Dr. Jahn, and they have explained the facts they have observed in a very different manner from the last-named physician. The following is the description he gives of the iodine disease.

When introduced into the organic fluids, iodine acts firstly and principally upon the process of nutrition. The first evident effect is an absorption of the fat, so that a gradual leanness is remarked. At the same time we may observe, with a little attention, an augmentation of all the excretions. The skin, in consequence of an increased deposition of carbon upon it, appears dull and of a livid hue. There is great and clammy perspiration. Respiration is obstructed. The urine is increased in quantity, and the surface of it is often covered with an oily pellicle. The alvine evacuations are increased, and the feces are loaded with bilious matter, and contain but little mucus. The seminal secretion is increased, and also the menstrual discharge. It is clear, says M. Jahn, that, in this state, the vitality of the veins and lymphatic vessels is exalted, and the predominance of venous excitement is shown by the swollen state of the superficial veins and the blue colour of the lips. The blood, as may be inferred from the diminished redness of the skin and the feebleness of the arterial pulsations, has acquired a more serous character, and is more liquified; so that the quantity of serum is greater in proportion to the cruor and fibrine. The energy of the irritable tissues is comparatively diminished. Hence the patient is more easily fatigued than before; digestion is irregular; the saliva and mucus are diminished, and complaint is made of dryness of the mouth and throat. The nervous power is also materially affected, and symptoms resembling hysteria and hypochondriasis arise; morbid sensibility, lowness of spirits, timidity, sensation of weakness, trembling of the limbs similar to that produced by mercury, agitated sleep, with disagreeable dreams, &c. At this period, irregular and transient febrile attacks announce a reaction of the constitution. If now the morbid condition be not opposed, and if the iodine be continued, the above symptoms increase in severity; and shortly the glandular tissues, the breasts, testicles, and thyroid gland, are diminished in substance. At length all those symptoms arise which are said to constitute nervous consumption.

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* We have already referred to a case in our own practice, in which temporary loss of sight, giddiness, &c. arose from the use of the iodine ointment. —Editor.

M. Jahn has examined two bodies, which presented the traces of the action of iodine. A woman, who, having misused the remedy, was attacked with enteritis, which proved fatal; and a man, affected with cancer of the stomach, who was treated by the internal and external use of iodine, and who took very large doses of the tincture secretly, in hopes of a more speedy cure. In the bodies of these patients, the fat had disappeared, the various tissues had a withered and flabby appearance, the glands were shrunk and soft, and also the mesenteric ganglia, (which are usually much developed in cancer of the stomach,) the thyroid and supra-renal glands, the liver, spleen, and ovaries.

Notwithstanding the mischief sometimes inflicted by the use of iodine, M. Jahn considers it one of the most valuable remedies which have been recently discovered.

Case of Gonorrhœa, alternating in a singular manner with Bilious Remittent Fever. By Lewis Campbell, M.D. of Moutton, Alabama.

On the 23d of July, 1827, I was called by Mr. ——, who had been affected with a gonorrhœa three ——— since; and, as he had been obliged to ride some distance every day on business, the symptoms were somewhat aggravated. He suffered greatly from ardor urinæ and chordee. The discharge of matter from the urethra was very profuse, and considerable general excitement was present. His bowels were freely opened with sulphas magnesiæ; one drachm of balsam of copaiva was directed to be taken three times a day, and a low diet enjoined. He obtained sudden relief from the ardor urinæ from this course; but a profuse discharge of matter, and the retraction of the urethra remained. His business calling him from home, he was under the necessity of riding some distance every day till the 26th, when he was attacked with a bilious remittent fever. During the evening he felt languid, sick at stomach, &c. At eight in the evening he was taken with a violent chill, followed by fever.

During the chill the gonorrhœal discharge was suddenly suppressed. On the morning on the 27th, I found him entirely free from all the symptoms of gonorrhœa. He assured me that he felt no inconvenience from that source.

The fever continued till the 30th. During this time he enjoyed entire exemption from the gonorrhœal symptoms. On the 30th, his general health being much improved since the preceding day, he escaped fever, but he was again attacked with gonorrhœa, and chordee. He was again put under treatment for those affections. His general health continued to improve till the 2d of August, when, from exposing himself to the sun on a short ride in the heat of the day, the bilious symptoms returned; and he then had chills and fevers two days in succession. During the first chill the running was again suppressed; and he was completely relieved from any uneasiness in the urethra during the continuance of the febrile symptoms. On the 4th he experienced exemption from fever and a return of gonorrhœa. His general health continued to improve from this period, though the affections of the urethra proved somewhat lingering. His stomach rejected the balsam in any form, and scarcely tolerated the presence of any medical substance whatever. Regimen and time affected a cure. Was the suppression of the gonorrhœa during the fever, and its immediate return when the fever yielded, a mere coincidence? Or was it a metastasis of morbid action from the urethra to the stomach, and from the stomach to the urethra? If the latter, does it not favor the opinion of the physiological school relative to the non-specific nature of venereal affections?—*North American Med. and Surg. Journal.*

Cases of Pneumonic Inflammation, attended with copious Expectoration of Pus, and ending in Recovery. By Dr. F. Bache.

Case I. William Coulter, a mulatto labourer, aged twenty-two years, was admitted into the hospital in the month of March 1828. He had been treated for pneumonic inflammation at the Arch street prison, before his transfer to this prison, and was still sick when he arrived. Up to the 1st of April, he had been bled and blistered twice, and took antimoniated barley-water and decoction of seneka. He has expectorated pus freely for about three weeks, and since the free expectoration has been better. At present (April 1st,) the expectoration is somewhat diminished, and the patient is getting better. The appetite is good, sleep easy, bowels open, skin cool, pulse regular.—Ordered the decoction of seneka to be continued, and a nourishing diet.

April 3d.—Cough rather more frequent; appetite continues good; expectoration the same. Continue the seneka, and take, in addition, the liquorice mixture.

5th.—Patient feels pretty well; expectoration inconsiderable. A puriform liquid of a bad smell is discharged from the nose. Breast without pain, bowels open. Pronounced to be convalescent. Continue the same remedies.

8th.—Expectoration same. Matter from the nose not so fetid. Had a griping yesterday, and took today half a drachm of rhubarb. Pulse good; appetite very good; sleep natural. Omit seneka, and continue the liquorice mixture.

10th.—The patient says he feels well, though he still expectorates. Discharged relieved.

July 23d.—Today I met Coulter in the street; he said he was quite well.

Remarks. I have copied this case just as it stands in my note book, where I entered it as a case of phthisis. It had the aspect of that disease, being characterized by emaciation and copious purulent expectoration. Still the result proved it to be one of those cases in which the lungs are not deeply implicated. Unquestionably the pus in this case came from abraded and inflamed surfaces, and not from abscesses or suppurating tubercles. I am thoroughly satisfied that, when suppurating tubercles exist, we have not yet learned how to arrest the disease; and I have reason to believe that it is such cases as the one here reported that pass for instances of cured phthisis. It is not always easy to distinguish the true from the spurious cases, but I should be disposed to say, as a general rule, that when the pulse is quick, and dyspeptic symptoms are present, associated with cough and purulent expectoration, the fatal disease, which is understood by the name of pulmonary consumption, may be considered as fully formed.

CASE II. John Hartman, farmer, aged twenty-four years. This also was a case of pneumonic inflammation, ending in suppuration. The subject of it entered the hospital on the 5th of February, 1828, and was for some time very ill. A free expectoration of pus came on, with a subsidence of all the bad symptoms. About the 25th of March he became worse, being affected with pain in the chest, hard cough, and fever; and the expectoration becoming less free, I ordered a blister to the breast, and the sweet spirit of nitre, and discontinued some tonic medicines which he had been previously taking.

April 1st.—This is the fifty-sixth day of his disease, and he takes seneka decoction and an anodyne mixture at night. His diet consists principally of milk, bread, and chocolate. The patient gets slowly better, and I entertain hopes of his recovering, from the great developement of his chest.

3d.—Patient feels weak and feeble; no pain; appetite moderate; sleep pretty good the previous night; bowels open.—Omit the anodyne mixture, continue the seneka. Apply one grain of morphia to a small blister on the chest.

5th.—Tried the morphia by the endermic method last night, but without effect. Cough straining; expectoration diminished and difficult.—Apply two grains of morphia to the blistered surface.

8th.—Has slept better the three last nights from the use of the morphia. The cough is less straining; and the matter, which is in small masses, is expectorated with greater facility.—Continue seneka and morphia.

10th.—Rested well the two last nights, with the exception that he sometimes awakes in a fright. Coughs and expectorates easier. The expectoration consists of ropy pus and mucus. Bowels open; appetite moderate; debility considerable.—Continue seneka and morphia. Ordered mutton daily.

12th.—Slept badly last night. The morphia being expended, none was applied last evening. The expectoration is diminished and more difficult; no sweats.—Continue the seneka.

15th.—Has not rested so well since the external application of the morphia was discontinued. Thinks his cough is worse.—Continue the seneka; substitute two grains of opium by the mouth for the morphia.

29th.—The patient continued to improve up to this date, the eighty-fifth day of the disease, when he was so far recovered as to be discharged from the hospital.

On the 25th of June this patient returned to the hospital, with universal pains and spitting of blood. He was bled, cupped, took several Dover's powders, and was discharged cured in four days.

Remarks. This case was somewhat like the last, inasmuch as the first symptoms led me to suppose that the lungs were affected, as they generally are in fatal consumption, that is, with tubercles. The prognosis, however, was more favorable, on account of the age of the patient (forty-four years,) and the great capacity of his chest. The morphia, employed by the endermic method, seemed to act favorably as an expectorant, and lessened the sufferings of the patient. It did not seem to disorder the stomach; and if this should be found generally true, the endermic employment of morphia will be a great resource where the different preparations of opium disagree with the stomach.—*Ibid.*

Caries of the Alveolar Process of the Upper Jaw, with the Reproduction of the Jaw Teeth after its Cure. The following case is related in Rust's Magazine, b. 29, h. 2, 1829.

H. S., a female, thirteen years of age, who had suffered repeated attacks of scrofulous disease, which, though somewhat obstinate, yielded at length to medical treatment, was seized with severe pain of the left portion of the upper jaw, affecting also the teeth of the same side. The left cheek became swollen, and a hard tumor appeared upon the gum, of the size of a hazel nut. The disease being supposed to be simply a gum bile, no professional aid was procured for fourteen days. During this time the alveolar arch, internally, was protruded in such a manner as to form a convex swelling within the mouth. Dr. SAMUEL, of Conitz, was now requested to see the patient. He concluded it to be a case of suppuration of the antrum; which diagnosis was strengthened by the circumstance of the patient discharging, in sneezing, from the left nostril, a fetid purulent matter. The third molar tooth was extracted, and the bottom of its socket was pierced with a trochar; a quantity of putrid pus was discharged. The perforation was kept open by means of a small plug, which was subsequently gradually enlarged. Into the antrum was injected a decoction of bark, with honey of roses and tincture of myrrh, part of which passed out at the left nostril. The first, second, and fourth molar teeth becoming loose, were removed at different periods. Soon afterwards a portion of loosened bone presented itself at the opening made into the antrum, which was extracted, the opening being first enlarged. It was about the size of a silver groschen, and of an irregular square shape. A similar portion of bone was subsequently extracted. The cure was effected in about six months by means of the foregoing injection and the administration of Rubia tinctorum and bark. The jaw, with its alveolar process, resumed its normal shape, and within the first year after the cure other teeth were cut, in the place of those which had been removed.

Morbid Appearances in the Brain, after frequent attacks of Apoplexy. The wife of a labourer, forty-one years of age, of long-continued intemperate habits, had experienced repeated attacks of apoplexy, after the last of which she had remained imbecile, and subject to occasional fits of epilepsy. During an attack of the latter she died suddenly. On opening the head, the bones of the cranium were found to be extremely hard, and of unusual thickness. The brain was of medium size, free from congestion, and of natural consistency.

On cutting into the substance of the organ, there were discovered, at the external part of the medullary portion of the right hemisphere, on a level with the thalamus nervi optici, two cavities, of the size of a small bean, and filled with a clear fluid. They were both surrounded by a coat of firm consistency, similar to a serous membrane; this was intimately connected by its exterior portion with the surrounding substance of the brain: each could, however, be dissected out, in the form of a complete sac. Their internal structure was cellular. Near to these, but more internal, and higher up, there was found a grayish or red gelatinous mass, very distinct from the medulla of the brain: this had already begun to be surrounded by a covering similar to the former. The ventricles were loaded with water. The pineal gland contained a large sand-like concretion. A considerable amount of fluid escaped from the spinal cavity. The viscera of the thorax and abdomen were sound; the stomach was, however, contracted to the size of the duodenum.

This case is related in Rust's Magazine, band xxx. heft 1, 1829.

Case of Congestion of the Cerebellum, with involuntary walking backwards. The Chevalier D., a widower, about fifty-six years of age, of a sanguine temperament and a good constitution, was cured of a pleuro-bronchitis. Two months afterwards, on the 9th of November, he was attacked with a pharyngitis; which was combated by an application of twenty leeches to the upper and lateral parts of the neck, by emollient cataplasms, mucilaginous drinks, &c. On the evening of the 13th, he was affected with a strong flush in the face, particularly over the cheek bones; eyes brilliant, and slightly injected; pulse strong, but little increased in frequency; skin hot; sensation of distress in the occipital region, and difficulty in performing the lateral movements of the neck. In the night occurred vertigo, giddiness, and an obtuse pain in the occiput. M. D. went on his knees to evacuate the urinary bladder, and was in great danger of falling backwards; which he prevented by grasping the head of his bed. Continual and fatiguing erections continued the whole night, but without emissions. Next morning, the injection of the face had disappeared, but a similar appearance had taken place in the occiput and back of the neck, with a slight tumefaction, but no pain on pressure; pulse the same as before. M. D. experienced giddiness, but walked a distance of about two gunshots: he was obliged to stop several times, to avoid a fall backwards, and to resist the tendency he felt to walk in that direction. He even made a step backwards, which he designed for the forward direction. When arrived at his place of destination, he again experienced giddiness, and a fresh propensity to walk backwards. He made nine or ten steps backwards, and would have fallen on his back if he had not supported himself upon a piece of furniture. The same propensity continued till his return home; when the symptoms immediately gave way before a bleeding of eighteen ounces, low diet, acidulated drinks, and a footbath with mustard. Next morning the Chevalier was quite well.—*Journal de Physiologie.*

PRACTICAL MEDICINE.

Syphilis cured in an Infant by Mercurial Frictions applied to a Goat that suckled it. (Archives, Avril.)

Dr. Veré Delisle lately communicated this case to the Académie Royale de Médecine. A woman, three months after delivery, who suckled her infant, contracted a syphilitic disease, characterized by ulcerations on the inside of the labiæ and a gonorrhœal discharge. The child was soon affected with venereal pustules and ulcerations around the margin of the anus. It was now suckled by a goat; and, after the inside of the thighs of the animal were shaven, two drachms of mercurial ointment were rubbed in each other day. The child was cured in a month.

SURGERY.

Remarks on Superficial Cancers, with Cases in which the Patients were cured without the amputation of important Organs. By M. Lisfranc. Read at the Academy of Sciences of Paris.

The object of the author of this memoir is to prove that the surgeon may frequently save either a part or the whole of an organ, in cases which have been before considered to require the complete removal of it. Recent discoveries in pathological anatomy have shown that cancerous diseases do not, at the same time, invade all the tissues of the organs attacked. For example, in cancer of the stomach, the disease is sometimes limited to the muscular tunic, or to the cellular substance which unites it to the mucous membrane, and when all these parts are affected with the disease, we may detect, by a careful dissection, the particular part in which the malady originated. This progressive succession in the march of cancerous diseases has for a long time attracted the attention of M. Lisfranc, in his examination of the bodies of patients who had died with cancer of the breast. He ascertained, by the most attentive investigation, that the disease had for years been arrested by the pleura, which remained untouched in the midst of the malady which surrounded it. In three subjects which had died with old carcinoma of the umbilicus, he remarked that the peritoneum offered the same opposition in the abdomen as the pleura in the thorax, to the extension of the disease. The same fact was observed in various cases, in which the parts attacked with cancer were contiguous to cavernous bodies.

In reflecting upon these facts, M. Lisfranc conceived the possibility of turning to the advantage of surgery the evidence afforded by pathological anatomy. Having observed that, in the majority of cases, cancer is confined to one tissue, he inferred that it might be necessary to remove only the part diseased, and not the whole organ. Experience soon proved that this idea was correctly formed, and many operations conducted upon this principle were crowned with the most complete success.

In two cases of cancer of the penis, the patients were saved from the most melancholy of all surgical mutilations. In the third case, the patient was attacked with cancer of the tongue. The two right thirds of the organ were diseased, and were hard, tumefied, and ulcerated; the whole substance being affected. Many of the most distinguished surgeons of Paris had seen the patient, and all of them had advised the total extirpation of the two thirds which were diseased. The healthy parts were separated from the diseased parts with a bistoury, and the latter were surrounded with a ligature, which was drawn moderately tight. No bad symptoms followed, and during the succeeding six days the tightness of the ligature was gradually increased: the portion included within it shrunk, became black, and fell off. The natural breadth and length of the tongue were still preserved, with the exception of a very small portion of the tip. The superfices had alone been diseased, and that alone was sacrificed by the operation. The parts beneath remained, and cicatrized under the influence of emollient and resolvent applications. A small ulcer remained for some time, but yielded to cauterization with the nitrate of silver. Several months afterwards the patient was shown to the Academy: he was perfectly cured, and enabled to resume his business of an advocate, in the exercise of which his tongue was, of course, a most important part.

M. Lisfranc, in concluding his memoir, draws the following conclusions:

1. That, whatever may be the ravages inflicted upon the organic tissues by cancer, nature tends to limit the extent of the disease.

2. That morbid anatomy having afforded probable evidence of the nature of these limits, we may hope to save the organs affected, by removing only the tissues which are diseased.

3. That this idea, derived from the progress of pathological anatomy, has been acted upon with success in the cases related, and in many others which will be submitted to the profession.

That we sincerely hope the opinions of M. Lisfranc may prove to be well founded, will not be doubted; but, upon a subject of such vast importance, the clearest and most satisfactory evidence will be required. It will be necessary to instruct us how we are to ascertain the extent of cancerous disease. By what means shall we determine that one component tissue of an organ is affected with the malady, and that another is not. M. Lisfranc has formed his opinion of the limits which nature assigns to cancer by dissection; but the question is not how we may establish this important fact in the dead body, but how we may discover it in the living, so that we may adapt our practice to the extent of the disease. If, however, M. Lisfranc had only thrown out a hint upon the subject, totally unsupported by practical experience, it would demand the attention of the profession; but he comes before us with stronger claims, the successful result of his practice. We earnestly wish that other surgical observers may confirm his views, and that the partial removal of a cancerous organ may be found to be safe and justifiable. At present we confess we are not satisfied upon this point, although we are much gratified at the distant prospect M. Lisfranc presents to us of the possibility of lessening the severity of many dreadful surgical operations.

Nævi Materni. (From Mr. Lawrence's *Lectures on Surgery.*)

Under the name of Nevi Materni are included various original deformities or peculiarities of the structure of some portion of the skin. The name nævi materni, which means simply mother's spots, is founded on the generally received notion that those peculiarities in the skin arise from some influence of the mind of the mother on the offspring. It has been supposed, for instance, that if a pregnant woman is terribly frightened by any strange sight, that the skin of the child will probably bear some mark on the body more or less allied to the object that has produced this terror. Or, again, if a pregnant woman should take a strong desire, or, as they sometimes call it, a longing for any thing, especially if the longing cannot be gratified, there is an idea that this object will be marked upon the child. Thus, if we may believe mothers and nurses, the objects that I am now going to speak of are only so many representations of things, whether of food or any thing else, that the mother has been longing for; whether it be beef or pork, raspberries or grapes, or the

Lord knows what. This idea seems to be very prevalent; the same appearances are called in French *envies*, which means mother's longings: the name they bear in German is the same, *mutter-mahl*, mother's spots.

We sometimes find an elevation of the skin, an irregular figure, of a rough granular surface, generally reddish, or brownish, or yellow, but varying in point of colour, and not uncommonly having on it particularly long hairs. These have been called in common language, *moles;* and they generally remain throughout life of their original size; they do not increase. It might happen that a mark of this kind was so situated as to produce a deformity; and if it is necessary, you can remove it, the operation of extirpation being a very simple one. There are some instances of these elevations of the skin growing after birth, and attaining a large size, of which this specimen is an example.

[Mr. Lawrence here represented a preparation, observing, "This was cut from the lower part of the back of a lady, then an adult. It had been a 'mark' originally, and I do not know that I can give it any other name than that of a huge mole. It measures about one foot in length, and is about one foot in breadth. It had a bright red appearance during life. It was removed by Mr. Abernethy, and I assisted him in the operation, many years ago. It did not go deeper than the skin: this is the adipose substance under it."]

Sometimes a part of the skin is brownish or reddish, and thickly covered with hairs, like the coat of an animal. A little time ago, I remember there was a boy in the foul wards. I had him stripped to examine some syphilitic eruption. There was a part on the chest, about two inches one way and one inch the other, of light brown hair, like the coat of an animal. I looked at it, and said, "What is that on the chest?" "Oh, sir," said he, "it is a mouse." I said, "it is not a mouse; it has no tail." "Ah," said he again, "it had a tail, but somebody cut it off." I saw a curious looking child, a little time ago; a gentlemen sent for me to see it as a curiosity. I think that a great part of the body was covered with hair. Over the lower extremities there was a great number of spots; one on the arm, and others on the trunk of the body. The skin covering the child, in other respects, was of the natural texture, and, indeed, these parts were not unhealthy.

In the greater number of these nævi, however, there is an unnatural state, particularly of the vessels of the skin. This peculiarity seems to consist more or less in the vascular tissue of the part. Sometimes you have a few vessels enlarged and ramifying superficially in the skin; sometimes giving not an inelegant kind of appearance. This has been called *spider nævus*, the ramifications bearing some analogy to the legs of a spider. Not uncommonly, you see parts of the skin discoloured, red, brown, or livid; sometimes of a deep tint, sometimes lighter, and this extending irregularly over a considerable part of the skin; very frequently on the face. These are commonly called *claret marks*, the colour being something like the stain produced by claret. You often see large vessels ramifying quite on the surface of the skin, and in some instances of that kind I have known individuals liable to occasional bursting of these vessels, and to very copious hæmorrhage from them. But these marks I am now speaking of generally are of a *stationary* kind; they do not increase; they remain in the same state through life. The nævi which are most commonly the subjects of surgical treatment, consist of peculiar vascular growths, seated either in the skin itself, or in the adipose tissue immediately under it. The *cutaneous nævi*, or those seated in the skin, consist of a soft bright scarlet elevation, the surface of which is finely granulated. They appear to occupy a certain portion of the texture of the skin, as if a part of it were stained with this bright scarlet colour. It is really rather an elegant sort of texture which occupies the place of the natural structure of the skin; it is generally of a more or less circular figure, not rising high above the natural elevation of the skin. The subcutaneous nævi consist of soft swellings seated under the skin, imbedded in the adipose tissue, the skin itself being completely sound over them. Towards the centre of the nævus, you have more or less of a blue or livid appearance. It seems as if some of the vessels were running out of the nævus to approach nearer the surface of the skin in the centre, so that you have a blue, or livid, or black discoloration in the centre, and a tumor extending in circumference under and much beyond the sound skin, in the cellular membrane beneath. This is quite a soft tumor. Not unfrequently you have a portion of cutaneous nævus in the centre, and part of a *subcutaneous* tumor extending under it: so that, when we speak of cutaneous and subcutaneous nævi, you are not to suppose that they are so essentially different in their nature that they cannot be combined together. You have in these nævi one part which is a bright scarlet soft state of the skin, and another which forms a tumor under it. Both these kinds of swellings are soft and compressible; in fact, if you press upon them, you find that you diminish their bulk; that you squeeze something out of them; and when you remove the pressure, they slowly recover their former size. Sometimes they are rather firmer than the rest of the skin, and there is a sensible increase of heat in them.

These nævi, like the others that I have mentioned to you, may remain stationary; that is, you see them of a certain size at the birth of a child, or they acquire a certain size soon after, and then do not grow further. More commonly, however, they are small at the time of birth, and begin to increase, and often grow very rapidly for some time. With respect to those that are permanent, they do not always remain in the same condition. There are certain changes, according to the state of the system and the particular circumstances affecting the individual, so that growths of this kind will sometimes be more full and tense, the vessels being apparently more filled; at another time they are paler and more flaccid. There are the cutaneous nævi, which are sometimes compared to strawberries, raspberries, and so forth; and really the simile is not altogether inapt. I have many times been seriously told, and that by well-informed persons, that a certain mark on their daughter's back, which they called a raspberry, increases at the time that fruit comes in, and gets larger and generally redder by the time that raspberries are ripe. It then withers, shrinks, and disappears every year. It is these changes in the state of the nævus which have given rise to, and may support, this notion.

I mentioned to you that these nævi are usually small at the time of birth, and often perhaps, so trifling as to be overlooked till some time after. Then they begin to increase in size, and grow rapidly. Thus you may see them of the size of a pin's head, or of the whole hand; indeed, there is hardly any limit to their growth. They are most common on the head; frequently they are found on the scalp, and upon all parts of the face; and sometimes they seem to occupy nearly the whole of a part; such as the ear, the eyelid, or the lip. I remember seeing the case of a young woman, at this hospital, where half of the lip, and the corresponding part of the side of the face, seemed to be entirely filled with this unnatural growth. It was covered by the skin externally, and by the mucous membrane of the mouth internally. These nævi are sometimes seated about the neck, often extending deeply; they are more rarely seated upon the extremities of the body; sometimes they are found upon the trunk.

Those that grow consist essentially of large vessels near the surface, and it will happen frequently that these vessels will give way. They are liable to be ruptured by accident, and thus profuse hæmorrhage will take place, or sometimes, after attaining a certain size, a state of ulceration and inflammation comes on, and this ulceration, if it become extensive, will frequently destroy a considerable part of the morbid growth, and lead to a kind of partial natural cure of the affection. I have mentioned to you that pressure will diminish the size of the nævi, and that they recover their former magnitude when the pressure is removed. This effect is produced by squeezing the blood out of them; for what they contain, which is thus removed by pressure, is blood; and moreover it is arterial blood. In the cutaneous nævus, which is quite on the surface of the body, and where the vessels are only covered by a thin kind of cuticular integument, you have a bright scarlet tint, showing that it is arterial blood. If the blood be in a deeper seated tumor, with a great thickness of integument over it, the colour is blue or livid, so that you might suppose that it was produced by venous blood; but you find, if you come to cut into such nævi in operations, that it is arterial blood which flows from them. I may mention to you, which is a further evidence of what they contain, that if an incision be made in operating, if you cut into any part of one of these growths, arterial blood flows out in a quantity and with a degree of violence that you can hardly imagine; and which you would scarcely believe possible, unless you saw it. A copious stream of the most florid arterial blood comes out, and you cannot restrain it unless you press firmly on the whole of the surface that is injured by the incision.

When you come to make a section of a tumor of this kind, after removing it, it exhibits a cellular appearance, and the general notion has been that it is made of cells, with large vessels ramifying through, and depositing blood in these cells. Now I believe this notion of the cellular structure of these nævi is not a correct one. So far as I have observed when a section is made, the apertures that are seen are the mouths of blood-vessels; they are all regularly circular, with a smooth lining, like that of the blood-vessels. They appear to me, therefore, to consist essentially of an aggregation of vessels ramifying and combining together into a kind of tumor. Whether they be arteries or veins, I do not undertake to determine, but I can only say that during life they appear to contain arterial blood, and when you cut into them, florid blood flows in the greatest profusion. Hence the name that is sometimes popularly given is by no means a bad one, *bloody tumors*; and they are described by Boyer under the title *tumeures variqueuses*, which is the same as our popular term, and both of which designate that they depend materially on blood-vessels. Dupuytren has turned his attention to the structure of these nævi, and his idea is, that they consist of the same kind of texture which is found naturally in certain parts of the body. Thus there are certain parts in which you find that the structures are usually flaccid, but which admit of distention by an increased influx of blood; they admit of the state which has been called *erection*, and the structure has been called by the French *tissue erectile*, erectile tissue, like that of the penis, the clitoris, the nipple of the female, and some other parts. Dupuytren considers that these nævi are unnatural productions of erectile tissue in the parts in which they are found. Hence he has called them *tumeures erectiles*. There are some points of analogy between these nævi and the erectile tissue, but I must observe that we do not know quite enough of either of these two tissues thus compared, to be prepared to assert or to deny their identity. I would observe, however, that this kind of structure not only exists as a congenital production, but may take place as an accidental formation after birth in various parts of the body. Under such circumstances, the tumor, although perhaps not precisely corresponding to the description that I have given to you, has, in many cases, another character, which is very important; that of pulsation, having a pulsation synchronously with that of the arteries. This is a circumstance which I have not observed in nævi materni, that is, in the congenital kind, and certainly does not exist in the greater number of them, though it has been sometimes observed. Dupuytren has alluded to it; he speaks of these tumors generally as having some pulsation. This is the affection which John Bell calls aneurism by anastomosis, and others have done the same after him. Hence it has been supposed that the congenital marks or nævi are of this nature; but as I mentioned to you, they do not possess that particular feature upon which Mr. Bell founded his opinion, namely pulsation, nor can these same growths be correctly denominated aneurism, for there is no kind of analogy between vessels inosculating with each other as these do, and that affection of the arterial trunks which we call aneurism.

The same principles of *treatment* are applicable to this affection, whether it exists congenitally, as nævus maternus, or whether it is an accidental production taking place subsequent to birth.

If nævi materni be stationary; if they do not increase in size, there can be no reason for interfering or meddling with them, unless they be so seated as to be a source of deformity; and as they are frequently found on the face, it may become desirable to remove them on this account, independently of the various mischief to which their increase might lead. A variety of methods have been proposed for dealing with these nævi, when it is wished to reduce their size or to take them away altogether. Mr. Abernethy has given some observations on this subject: he observed the circumstance of their being occasionally of a higher temperature than the rest of the surface of the body, and therefore thought that, if cold applications were used, so as to reduce the temperature, and then the part was subjected to pressure, they might be removed in that way. He mentions a case where an extensive nævus on the forearm of a child was thus reduced. It must be observed, however, that we generally have to treat those that are seated on the face and head, where pressure cannot well be applied: and, besides, pressure is sometimes found to irritate them, and make them grow faster, rather than to diminish them.

Excision is an obvious, and at all events an effectual mode of getting rid of these affections. In cutting them out, you must observe the rule of taking away the whole of the unnatural growth; you must cut into the sound parts all round; you must not proceed economically, nor be inclined to save either skin or any other part in which any portion of this production may exist, because if you leave any thing behind, you have the growth reproduced, and if you cut into it in operating, you will have such profuse hæmorrhage that, unless you saw it, you would not think possible. You must cut freely in the circumference in the sound parts, so as to take away all the morbid growth; for although you have a good deal of hæmorrhage even in this way, yet you will not have that furious bleeding which results if you cut into the tumor. Very commonly, in extirpating them, you have a degree of hæmorrhage which makes you think for the moment that the child (if the operation be performed on an infant) will die from the loss of so much blood. I may mention that the operation of excision on this account is in some measure limited to nævi of a moderate size; for when the operation is performed on those of large size, there is really danger of immediate death under the knife, from hæmorrhage. Mr. Wardrop took away a large nævus from the back of an infant; he took it away as quickly as he could, but it was one of considerable size, and there was a most profuse bleeding from the whole of the divided surface, and in about one or two minutes the child was defunct. On coming to examine this nævus, which he had so removed, one of the vessels that was opened was found to be of caliber enough to admit the largest writing quill. When you consider that the whole surface, perhaps, is covered with these vessels, and see how freely they emit their blood, you cannot wonder at such an occurrence.

In order to avoid the danger of hæmorrhge from the use of the knife, it has been proposed to tie these tumors, to surround the base with a ligature, and draw it very tight, so as to produce mortification of the included part. In general the bases of these tumors are too large, and they are too little prominent to admit of surrounding them by a single ligature, but you pass under the base a strong needle with a double ligature, and when you cut off the needle you have two ligatures, which are to be tied one each way, so as to surround the base by two ligatures, each of which encloses one half. This is an effectual mode of preventing the danger of hemorrhage. You might suppose that when the ligature surrounds a nævus of considerable size, and includes a large mass of integument, that this mode of proceeding might be liable to much inconvenience. I have operated, however, in a considerable number of cases, where the nævus was of considerable size, and I have in no instance seen inconvenience arising from the employment of the ligature. I have used it in cases where the nævus was so large that I dared not to extirpate it with the knife, and the operation has been successful, so that the proceeding seems to be a very safe one.

It has been proposed in nævus, as in aneurism by anastamosis, to prevent the growth of the tumor, and to produce its reduction, by tying the arterial trunks that feed it. Now in general we find that the vessels seem to come into them from all quarters, so that it is very difficult to do this. However this has been more particularly attempted where the nævi have been seated upon the head, and where the carotid artery could be tied. Mr. Wardrop performed the operation of tying the carotid artery in a child for a large nævus on the head. This seemed to produce a considerable reduction in the size of the tumor; the child, however, was enfeebled and in a reduced state in consequence of partial ulceration and loss of blood from the nævus, and died more from that than from any other cause; so that in this case the effect of tying the artery could not be well estimated. In consequence of this case of Mr. Wardrop, tying the the carotid artery was tried by Dupuytren in a large nævus situated about the ear, and including the whole texture of the surrounding parts. By pressure on the carotid artery, it was found that the size of the nævus was reduced, and that it became flaccid. Hence the natural inference was, that if the artery were tied, the nævus would be reduced in size. Dupuytren tied the common carotid artery, and for a few days the effect of the operation seemed to correspond with the wishes of the operator; the tumor became flaccid, but it soon swelled in size again, and after a little time it grew as fast as ever; so that, in fact, according to the experience that we have at present, the plan of tying the arteries that go to these nævi, or the main trunks of the vessels which supply the part of the body in which they are situated, cannot be much relied on.

I remember a case of aneurism by anastomosis, seated on the finger of a young girl, on whom Mr. Hodgson operated. This was not a nævus; this was a production of the vascular kind, that came subsequently to birth, and formed a considerable swelling, occupying a great part of the finger, with a strong pulsation in it, and a degree of heat, not only in the finger, but in the whole hand. Mr. Hodgson tied the radial and ulnar arteries in that case, having first pressed upon them to see the effect, and having been satisfied that doing this materially reduced the tumor and stopped the pulsation. This operation was attended at the time with an interruption of the pulsation, and a reduction of the swelling; but the effect was only temporary, and, in fact, the girl suffered so much, that she wished me to do any other kind of operation that I could think of for her. I accordingly subsequently cut round the base of the tumor upon the finger; that is, I cut round the tumor between its basis and the hand, so as to divide the whole of the soft parts except the flexor and extensor tendons; and in doing this there was a pretty considerable hemorrhage; for, of course, there was a necessity that all the enlarged vessels should be divided. This had the effect, I will not say of removing the tumor, but certainly of arresting its growth. I may mention that a question was entertained, if the skin were cut circularly round, and all the soft parts were divided except the tendons, whether or not mortification would occur. However, when I divided the vessels (I may mention that one of the digital arteries was as large as the radial artery), the arteries at the distal extremity, coming from the point of the finger, bled so freely, that I was obliged to tie some of them. The circulation in the small vessels, along the periosteum, proceeded in such a manner as to be quite sufficient to sustain the vitality of the parts.

Then another principle of treatment for these nævi, were you do not like to extirpate them, or the application of the ligature may be impracticable (for sometimes the figure and situation of the nævus are such that a ligature cannot be applied,) consists in a kind of attempt to imitate the process of natural cure which I mentioned consist in an accession of inflammation and ulceration, sometimes leading to partial sloughing of the tumor. It is the application of caustic to the tumor. Mr. Wardrop recommends an application to the centre of the tumor of a portion of potass, or rubbing the tumor thoroughly with the nitrate of silver; but the potass is the most effectual. He says it will produce a certain degree of inflammation at one part of the tumor, like the natural process, and that this will diffuse itself over the whole of the texture; and thus you will get rid of a nævus which is too large to attack with the knife. Not long ago he sent me a patient to look at, with a large nævus on the neck, which he thought too large to admit of being treated by excision or ligature. He applied caustic in the way that I have mentioned. This cure is going on favorably; and he has employed it to another, which is also going on well. At all events, you know from this that the caustic may be safely employed in cases of this nature.

Another method lately proposed, and which in some instances has been adopted with great success, is that of vaccination on the nævus, in children who have not previously been the subject of the vaccine disease. You introduce the vaccine matter at points all over the nævus, and round it, so as to produce a considerable degree of inflammation in the textures. I have tried this in two or three instances: in one case with complete success; in one case with partial success; and I have seen an instance lately where it has entirely failed, although the nævus was not large, and I was obliged to extirpate it. It was seated on the scalp.—*Med. Gazette.*

MIDWIFERY.

Employment of Secale Cornutum in a Case of Hemorrhage from Inertia of the Uterus. By M. P. L. Maurage. (*Archives*, Avril 1830.)

M. Maurage was called to a woman who had been delivered seven hours, after a natural but long and painful labour. The placenta was not expelled, and a violent hemorrhage, which had arisen immediately after the birth of the child, still continued, and produced frequent syncope. The patient's face was pale, and she appeared much exhausted: pulse sixty, but scarcely perceptible. Upon examining the abdomen, no projection of the uterus was discoverable. The belly was supple, and not painful. The cervix uteri easily permitted the introduction of the hand, and it was ascertained that the placenta adhered throughout nearly its whole extent. The uterus appeared in a state of complete relaxation. No contraction was produced by moving the hands and fingers about within its cavity, or by friction on the abdomen. Under these circumstances, it was apprehended that the hemorrhage would increase if the placenta were separated, from a want of uterine power, and it was determined to give the ergot.

M. M. withdrew his hand from the uterus, after having kept it in about fifteen minutes. Ten grains of coarsely-powdered ergot were infused in four ounces of sugar and water, and given at one dose. In fifteen minutes the hemorrhage was less, but the patient had experienced no pain. In one hour the hemorrhage was not half so great as it had been, but still the uterus did not contract. In two hours from the first dose of the remedy, the same quantity was repeated: and in twenty minutes more the hemorrhage ceased entirely, and contractions of the uterus were plainly felt through the abdominal muscles. After waiting an hour, attempts were made to extract the placenta, but the cervix uteri was so much contracted as scarcely to admit one or two fingers. The placenta still remained adherent to the uterus; but, as the hemorrhage had ceased, and there was no necessity for any immediate measures, M. M. waited still two hours longer, when, the pains having entirely subsided, and the natural separation of the placenta no longer probable, a third dose of the ergot was given. In fifteen minutes afterwards, the pains in the back returned, and in about an hour slight uterine contractions took place, which gradually expelled the placenta in the course of three or four hours. Its expulsion was not attended by any hemorrhage or severe pain, and the patient recovered perfectly without any unfavorable symptoms.

INTELLIGENCE.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

Report of the Committee of Management for the Year ending 31st May, 1830.

During the last year 1624 persons, of all ages, have been admitted to the benefits of the charity, making a total of 16,895 since its institution. Of these 550 have been restored to sight by the different operations for cataract, some who have been born blind, and some at a very advanced period of life, and after many years of blindness. Several of these, old soldiers and sailors discharged from the public service, after having wandered through the streets in a state of destitution, have been rendered comfortable and comparatively happy through this charity, which, from the nature of its foundation, is always open for their reception.

Your Committee have reason to believe that, under the improved methods of treatment introduced at this hospital within the last three years, those terrible diseases which have often afflicted our fleets and armies, and distressed the poor in workhouses and infant-asylums, will be suppressed as soon as they may appear.

The Committee, in the report of last year, gave the names and addresses of sixteen children, blind from a disease acquired in their birth, which is always curable, if immediate application is made for assistance, or if the nature of it be generally understood. The present Committee regret to add a list of twenty more irrecoverably blind of one or both eyes, for want of a little assistance, which, if extended through the medium of this hospital during the first weeks of their existence, would have secured them against the greatest of misfortunes.

[Here follow the names and residences of the patients referred to.]

The Committee earnestly wish to impress on the public, that another and most important benefit to mankind arises from this hospital. Its offering the means of instruction to medical students, by which they may be enabled again to extend the advantages derived from this charity in every direction; and the course of Lectures on the Principles and Practice of Surgery, and on the Diseases of the Eye, given by your surgeon during the winter season, is open gratuitously to all medical officers of the navy, the army, the ordnance, and the East India Company, through whom the greatest benefits have been conferred in various quarters of the globe to an extent scarcely to be believed.

In order to be enabled to receive the poor and often destitutes persons who apply for advice, a piece of ground has been rented in Chandos street, near the Strand, on a lease for 99 years, from the Commissioners of Woods and Forests, for the erection of an hospital capable of containing from twenty to thirty in-patients, who will be received from all parts of the country, on the recommendation to the Committee of the mayor, magistrates, resident clergymen, or by a letter from any of the subscribers to the hospital. The sum of £5000 is considered sufficient to effect all the objects in contemplation. Of this £2500 have been subscribed, and the Committee rely on the humanity and charity of the public for the remainder, and for the future support of the hospital.

By order of the Committee,

W. T. HUGHES, *Secretary*.

Prospectus of the "Metropolitan Society of General Practitioners in Medicine and Surgery."

While almost all public bodies, whether professional or commercial, form associations, corporations, or companies, for the purposes of legislating for their mutual protection and for the advancement of their prosperity, it is found that no association of the numerous class of medical men comprehended under the term General Practitioners, has in any manner been yet formed for the protection of their particular interests.

Various branches of the medical profession have colleges, charters, and corporations, from which the general practitioner is either altogether excluded, or attached as an appendage only; he is not admitted to a participation in their *Councils*, or to share in their honours; as a general practitioner, he belongs exclusively to no one branch, and is, therefore, virtually excluded from all.

A society has, therefore, been formed, entitled "The Metropolitan Society of General Practitioners in Medicine and Surgery," which is intended as an union of the practitioners of this class throughout England and Wales, for the protection of their mutual and individual interests; having the following objects:

1st. Such alteration of existing laws and customs as shall promote the prosperity and respectability of the general body of practitioners.

2d. The adoption of such measures as may be conducive to the advancement of medical science, and of professional information.

3d. The periodical assembling of the members for literary and scientific discussion; for the cultivation of social intercourse, and for the consideration of general measures relative to the Society.

4th. The creation of a fund to be appropriated to the protection of the members, and for the general exigencies of the Society.

5th. The establishment of a benevolent fund, by contributions from members of the profession at large, and other charitable persons, for the relief of distressed medical men and their families.

The limits of a prospectus will not allow of a full detail of the objects contemplated; but it may be observed, in addition to the foregoing general statement, that it is intended, as soon as practicable, to effect some regulation respecting the mode of professional compensation; and, if necessary, to procure a legislative enactment to authorise the general practitioner to make a fair and open charge for his services. It it also intended to protect, individually, those members who may become involved in questions which may be considered by the committee to affect the interests of the Society as a body.

Notwithstanding that there are numerous charitable funds for relieving distressed members of particular branches of the medical profession, it is found that there are many members of that profession who are not objects of relief from any of those funds; and it is, therefore, to supply this desideratum, that the plan of a General Benevolent Fund has been adopted, the application of which, it is intended, should not be confined to this Society exclusively, but should be extended, at the discretion of the committee, to every member of the profession.

The affairs of the Society are under the management of a president, vice president, and a committee.

A house, or chambers, will be engaged, as early as possible, for the use of the Society.

The Society will meet at such stated periods, and in such manner, as will be hereafter determined.

The foregoing is a brief statement of the views of the founders of this Society, and of the advantages intended from its institution, the plan of which may be enlarged, or curtailed, according to the support it may receive.

The committee of management entertain a confident hope that the Society will be of great utility to the general body of practitioners, whose attention to this subject is earnestly recommended.

WILLIAM GAITSKELL, *President.*

It is requested that all applications and communications be made and addressed (post paid) to MR. W. SENHOUSE GAITSKELL, solicitor, 21, Stamford street, Blackfriars.

BIBLIOGRAPHICAL NOTICE.

Treatment of Cancer by Compression, alone, or combined with other means; together with a general History of the Disease. By J. C. A. RECAMIER, Physician to the Hôtel Dieu. 2 vol. 8vo., plates. Paris.

We mention this work for the benefit of those who may be investigating the subject discussed. Numerous cases are detailed, and the results are striking. If, in the various instances related by M. RECAMIER, the disease was really cancer, his success is astonishing, and the treatment he recommends worthy of the most deliberate attention.

MONTHLY LIST OF MEDICAL BOOKS.

[*Medical Works cannot be entered on this List except a copy be sent for the purpose; the titles of Books having frequently been transmitted to us, as published, which have not appeared for weeks, or even months, after.*]

Additions in the Second Edition of the Influence of Climate, &c. By JAMES CLARK, M.D.—pp. 39.

We have already briefly mentioned the many improvements in the second edition of Dr. Clark's very interesting work: in our next Number we shall give an analysis of these additions.

Two Lectures on some of the Physical Signs of Diseases of the Chest; delivered before the Members of the Portsmouth Philosophical Society in January 1829. By JOHN FORBES, M.D. F.R.S. &c.—1830.

A Manual of Descriptive Anatomy, by CLOQUET. Translated by THOMAS KING, Surgeon.—Dumas, Leicester square. Nos. II. III. and IV.

This excellent work cannot fail to be supported by medical students. Mr. King has conferred a great benefit upon his junior brethren, by affording them so good an opportunity of acquiring a perfect knowledge of anatomy and of the French language at the same time.

An Inquiry concerning the Indications of Insanity; with Suggestions for the better Protection and Care of the Insane. By JOHN CONOLLY, M.D. Professor of Medicine in the University of London.—Taylor, 1830. 8vo. pp. 496.

Auli Cornelii Celsi de Re Medica. Libri octo. Editio nova. Ex recensione Lev. Targæ, curante C. F. Collier, m.d. Accedit Lexicon Celsianum breve. Vols. III. and IV.—32mo. Highley, London. With an English Translation.

> Dr. Collier will not think we slight the useful task he has performed, if we limit ourselves to a general expression of our approbation of the work. It cannot fail to be of much assistance to medical students.

Specimen of an Introduction to the Study of Anatomy. By **James Paxton**, Surgeon, and author of Illustrations of Paley's Natural Theology.

> Mr. Paxton's work will very shortly be published, and, judging from the specimen we have received, we cannot doubt that it will be the favorite book of study with young anatomists. The plates are very well executed; the references clear and distinct; the descriptive text concise and correct. The plan Mr. Paxton has adopted of giving the engraving and its description on the same page will materially enhance the value of the work to the student.

On Canine Madness; comprising the Symptoms, Post-mortem Appearances, Nature, Origin, and Preventive and Curative Treatment of Rabies in the Dog, and other Domestic Animals. By **W. Gouatt**, v.s. and f.z.s. &c.—8vo. pp. 52. Longman, London, 1830.

Remarks on the Disease called Hydrophobia; Prophylactic and Curative. By **John Murray**, f.s.a. f.l.s. f.h.s. f.g.s. &c.—8vo. pp. 86. Longman, London, 1830.

METEOROLOGICAL JOURNAL,

By Messrs. Harris and Co. Mathematical Instrument Makers, 50, High Holborn.

May	Moon.	Rain gauge.	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 a.m.	max.	min.	9 A.M.	10P.M.	9A.M.	10P.M.	9 A.M.	10P.M.	9 a.m.	3 p.m.	10 p.m.
20			66	70	55	29.81	29.72	44	45	SSW	E	Fine	Fine	Fine
21			59	63	50	.69	.62	45	46	E	E	——	——	——
22	●		60	63	56	.70	.80	57	55	W	NW	Cloudy	——	——
23			62	68	52	.67	.58	59	65	NE	NE	Fine	——	——
24			60	63	53	.52	.58	66	61	SSE	SSE	Cloudy	Cloudy	——
25			65	69	53	.50	.37	56	55	WSW	SW	Fine	Fine	Rain
26			57	62	51	.29	.34	55	55	W	W	Cloudy	Rain	Cloudy
27		.134	58	55	50	.35	.46	55	53	W	WNW	Cloudy	Cloudy	Cloudy
28			53	60	49	.69	.83	53	52	WNW	WNW	——	——	——
29	☽		59	64	52	.93	.84	52	49	NW	WSW	Fine	Fine	Rain
30			57	61	50	.62	.68	52	54			Rain	Rain	Fine
31		.45	59	61	55	.72	.85	55	54	SW	SW	Cloudy	Cloudy	Cloudy
June														
1			60	65	51	.90	.94	54	54	SW	WSW	Cloudy	Fine	Fine
2			62	62	54	30.00	.92	54	54	WSW	WSW	Fine	——	——
3			62	62	51	29.69	.40	54	61	NE	SSW	Cloudy	Rain	Cloudy
4		.37	56	60	51	.43	.75	65	62	SW	WSW	Cloudy	Cloudy	Cloudy
5			54	61	49	.87	.85	56	54	WSW	SW	Fine	Fine	Fine
6	○		64	71	55	.81	.78	55	55	W	W	——	——	——
7			58	63	53	.76	.76	56	55	SW	NW	Rain	Fine	Cloudy
8			56	62	51	.78	.91	55	57	NW	NNW	Cloudy	——	Fine
9			54	57	50	.92	.91	60	61	N	NNE	Cloudy	Rain	Show'ry
10		.27	52	58	51	.86	.83	63	62	NW	NW	Cloudy	Rain	Cloudy
11			58	59	55	.83	.79	61	64	WNW	WNW	Cloudy	Fine	Cloudy
12		.24	58	63	52	.61	.65	54	56	WSW	NW	Sleet	Fine	Cloudy
13	☾		56	62	50	.60	.57	56	54	W	W	Fine	Cloudy	Cloudy
14		.19	53	61	48	.53	.45	53	54	WNW	WNW	Cloudy	Show'ry	Rain
15			51	56	49	.55	.55	55	57	NNE	NNW	Show'ry	Rain	Cloudy
16		.54	58	62	42	.48	.70	58	56	W	NNE	Sleet	Fine	Rain
17		100	60	68	42	.77	.79	56	58	N	N	Cloudy	Fine	Cloudy
18			58	62	50	.68	.52	58	56	NNW	WSW	Cloudy	Fine	Fine
19			59	65	48	.47	.52	50	50	WNW	W	Fine	Fine	Fine

The quantity of Rain fallen in May, was 2 inches and 29-100ths.

THE LONDON

Medical and Physical Journal.

N° 378, VOL. LXIV.] AUGUST 1830. [N° 50, *New Series.*

For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty, in Europe and America, were under deeper obligations than to the *Medical and Physical Journal of London*, now forming a long but an invaluable series.—*Rush.*

ORIGINAL PAPERS, AND CASES,

OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER AUTHENTIC SOURCES.

MIDWIFERY.

Half-yearly Report of Cases in Midwifery, which have occurred in the Northern District of the London and Southwark Midwifery Institution. By C. WALLER, Esq. Consulting Accoucheur to the above Institution, and Lecturer on Midwifery at the Medical School, 58, Aldersgate street.

1830.	No. Women delivered.	Sex of Children: Males.	Females.	Born alive.	Stillborn.	Presentation.
January ··	29	14	15	28	1	27 Natural 1 Breech 1 Face toPu.
February ··	23	14	9	22	1	22 Natural 1 Breech
March ····	35	21	14	33	2	Natural
April ····	25	9	16	23	2	24 Natural 1 Arm
May····	43	24	19	39	4	39 Natural 1 Foot, 2 Br. 1 Face
June·····	26	14	12	24	2	25 Natural 1 Foot
Total ····	181	96	85	169	11	

⁂ Several of the above, reported as Stillborn, were Premature Births.

IN the Report of the preceding half-year, I mentioned that several cases of abdominal inflammation had occurred, but which were of the active character; and accompanied with considerable vascular power, and therefore easily subdued by a corresponding activity of treatment: I am sorry the report this time must be much more unfavorable; puerperal fever, in its most malignant form, having, in the early part of the year, attacked several of our patients, and in many instances, in spite of (I trust) the best-directed efforts, terminated in death.

It is much to be regretted that no efficient remedy has been discovered for this horribly devastating malady, and that we do not even yet agree as to its precise nature. That it is of an inflammatory character, is evident enough from the post-mortem appearances; but what is the specific nature of this inflammation, is a question which has yet to be settled. It is, I conceive, sufficiently obvious that it is *not* acute inflammation of the peritoneum: it differs from it in its characters during life, and in its appearances after death; the chief difference in the living subject consisting in the sudden and extraordinary rapidity of the pulse, marked also by a very peculiar undulating beat, widely differing from the full and round, or contracted and hard throb which occurs in peritonitis. It is not uncommon to find the pulse mounting up to 130 in the minute, within an hour or two after the attack; and, in the late epidemic, acute pain in the abdomen was, with one or two exceptions, by no means the most prominent symptom. There is also more cerebral affection, and, in many instances, an immediate and irremediable prostration of the powers of the constitution.

Then, with regard to the dissection of these cases, we find, it is true, a copious effusion; but it is of a muddy appearance, mixed with a large quantity of substances resembling curd; and where this substance is deposited between the folds of the intestines, there must be, of necessity, a certain degree of agglutination, but I have never seen those tight adhesive bands which are so commonly observable after acute abdominal inflammation.

The inflammation appears to be migratory in its progress. Several well-marked cases have occurred in which the uterus was evidently the part first affected; after which, it extended itself upwards till it reached the diaphragm, the patient eventually sinking from the same kind of disease attacking the pleura, producing the same kind of effusion within its cavity. Here, also, those firm adhesive bridles which are so frequently seen uniting the two pleural surfaces were wanting, though the curdy matter was deposited in large masses. The mode in which the two diseases terminate when they end in recovery, is also different: in acute inflammation, we can frequently knock down the disease at once, the remedies almost immediately putting a stop to the pain, and equalizing the balance of the circulation; whilst, in puerperal fever, it continues for several days, gradually, and not rapidly, disappearing; the plan of treatment merely keeping it within bounds, as it were, and thus allowing the system slowly to recover itself.

Another interesting question arises, whether it be of an infectious nature? and, if so, by what means the contagion is conveyed from the one to the other. The information I have obtained from my own experience, and from that of others, appears to turn the scale in favor of the opinions of those who believe that the disease may be carried from one to another; but I strongly suspect that contact with the genitals is the method by which it is conveyed. A very strong argument in favor of this opinion is the fact that, although I visited seven or eight times in the day various puerperal patients, who were labouring under, and in fact dying from, this fever, in no single instance was it communicated to my private patients. It should be remembered that in very few instances was the *delivery* conducted by myself, and therefore there was no necessity for my making any vaginal examinations; and, in most of the dissections after death, I avoided, as much as possible, coming into actual contact with the diseased parts.

My own opinions regarding the nature of the disease are scarcely sufficiently mature to justify me in making them public, and it is rather with a view of eliciting information for myself than of conveying it to others, that I wish to call the attention of the profession to the subject.

The London and Southwark Midwifery Institution has not been the only one that has suffered from the ravages of puerperal fever; nor has it been confined to public charities: very many accoucheurs must have lately had opportunities of seeing it; and I cannot help thinking that, if the symptoms, progress, and treatment of the disease, together with the appearances after death, where this event has taken place, were faithfully recorded, that something like a knowledge of its true nature might be procured: then, and not till then, can we expect to find out a successful method of treatment.

In private practice I have seen two cases only: the first was the wife of a surgeon, living at the West end of the town, whom I was requested to visit in consultation on the fifth day of the disease. She had at the onset been very actively treated, and was then in a state of alarming collapse, complaining still of great pain, with considerable tension of the abdomen; the discharges were very offensive, and there was no secretion of milk; the head was much affected; the stomach very irritable, and the bowels rather constipated; the pulse rapid. The plan of treatment consisted in attending to the bowels, in soothing the stomach, in employing counter-irritation to the abdomen, by means of a bag containing chamomile flowers, the outside of which was wetted with oil of turpentine, and afterwards in instituting a gentle mercurial course. The oil of turpentine was used internally as a purgative with considerable advantage, given in doses of six drachms, floated upon cinnamon water. This patient was in a precarious state for some weeks, and was reduced to a mere skeleton; but eventually regained her health, strength, and plumpness. The second case terminated fatally: it was that of a young female, who was delivered after a tolerably easy labour. About an hour previous to its completion, she complained of great chilliness, and the pulse flagged a little. Pulv. Secalis ℈j. was given, and a little warm brandy and water. The coldness was not, however, removed, but remained till she was placed in bed, about an hour after the birth of the child. On the following day she seemed doing well, although she complained of more after-pains than usual. On the third morning I found her very ill: she complained greatly of pain in the head, the countenance was flushed, the scalp hot, and the pulse was 140 in the minute. Ordered her twelve leeches to the temples, and an aperient. In the evening the head was relieved, but there was considerable abdominal uneasiness when pressure was applied. She remained much in the same state, as far as the pulse was concerned; sometimes referring the pain to the side of the abdomen, at others to the chest; her tongue was not, at first, much altered, but it soon became very dry and glossy, and the bowels usually relaxed. Mercury, so as to affect the mouth, was given, but produced no amelioration of symptoms. On the seventh day after delivery, I was summoned in great haste, and found her with a very rapid pulse, gasping for breath, and suffering much from palpitation of the heart. As there seemed to be a good deal of hysterical excitement, I ordered her Sp. Amm. fœtid. cum Mist. Camph.; and this was productive of so much temporary benefit, that she begged it might be repeated the next day. In the course of the disease, digitalis was administered and blisters applied; but she died on the eleventh day. On examining the body, the intestines were seen to be inflated, and there was a slight effusion of limpid serum into the abdominal cavity, but no other marks of inflammatory action. There was most extensive disease in the chest: the pleura covering the lungs was greatly thickened, so as to form a very dense membrane, evidently the result of disease of long standing. The costal pleura was injected with blood, which was dark coloured, appearing in patches like small ecchymoses. There was a very large effusion of turbid serum, in which flakes of curd-like substance were mixed in abundance; there was also a considerable quantity of this substance deposited upon the surface of the pleurà, but not adherent to it. I find, on reference to my Adversaria, that it is described as "exactly resembling that which takes place in the abdominal cavity in the worst forms of puerperal fever;" and I have no doubt that it was an inflammation of precisely the same nature, varying only in its seat; the pleura, instead of the peritoneum, being the part attacked. These two cases occurred before those of the Institution, about to be related.

Case I. Mrs. B. æt. thirty-five, was delivered of her fourth child, after a very easy labour, on the 20th of January. During the night she was teazed with efforts to vomit, though but little was ejected. There were no after-pains, the pulse small and soft. On the 21st, these efforts continued: she had taken an egg to her breakfast, which perhaps tended to increase them. A little weak brandy and water was given her, and small doses of Tinct. Opii.

22d.—More easy and tranquil: the retching returns by fits; the bowels rather confined. Capiat Ol. Ricini ℥ss. cras mane.

23d.—In the night purging came on: she nevertheless took the oil. She complained of tenderness over the uterine region; the pulse 120. Hot cloths were applied, and calomel and opium administered.

24th.—Pain in the belly has subsided; vomiting returned; the tongue is white, and thickly coated; there is considerable difficulty of breathing, with some pain in the chest. A blister was ordered, and the saline draught in a state of effervescence. In the evening, she was evidently sinking; dyspnœa increased; the pulse at the wrist not to be felt; the caroid pulsations were 140 in the minute; there was rattling in the throat, which continued till one o'clock on the following morning, when she expired.

Sectio cadaveris, thirty-six hours after death. A small quantity of transparent serum was observed in the cavity of the abdomen; there was no turgescence of the vessels of the peritoneum; the round ligaments were highly injected, and one of the ovaries converted into a substance exactly resembling, in its external character, very pure and white hog's lard, in which there was also a quantity of hair. The spleen was very soft, almost rotten in its texture, the slightest force breaking it down. In the thoracic cavity was a copious turbid effusion, mixed with that curdy substance so commonly witnessed after puerperal inflammation. The vessels of the bronchial membrane were very turgid.

This patient was of a remarkably relaxed and feeble constitution; her countenance was naturally pale, almost to ghastliness; and she had been for some time troubled with dyspnœa. She was the first patient upon whom I performed transfusion, (about five years since:) no trace of the operation could be discerned, though the vein was carefully examined.

Case II. Mrs. B., æt. twenty-five, was delivered of a stillborn child on the 28th of January. The fœtus appeared to have been dead for some time, for it was quite putrid. Immediately after the delivery, a quantity of clotted blood was discharged. Capiat Mist. anodyn.

29th.—Appears to be doing well. Not having had much sleep, the mixture was ordered to be repeated.

30th, six P.M.—Last night she had a rigor, followed by heat and profuse perspiration; afterwards there was pain in the uterine region, which is now very tender to the touch; there was also a soreness complained of in the bowels, which was not aggravated on pressure; pulse 120, and by no means strong; tongue clean; no milk. Applic. abdom. Hirudines xx., et sumat quartis horis Hydr. Submur. gr.ij.; Pulv. Opii gr. iss.

Eleven P.M.—Much the same. Some of the leeches not yet come off, and no pill had been taken.

31st, eight A.M.—Free from pain; pulse 120, and soft; head much confused; is very drowsy, but easily roused. Answers questions rather incoherently, (partly, probably, the effect of the opium.) Bowels opened three times during the night.

Noon.—Still drowsy and confused. Complains of slight pain when pressure is made on the uterus; tongue brown; sordes about the mouth and gums; urine scanty and high coloured; no lochial secretion.—At eight o'clock, not having had a motion, she took Ol. Terebinth. ℥ss.

Ten P.M.—The turpentine has operated once. She is in no pain, but is much confused in her head.

February 1st.—Had four copious watery evacuations during the night. Head not so much confused; pulse 110; no pain in the abdomen. Capiat Sodæ Tart. ʒi.; Syr. Papav. ʒss.; Aq. Menthæ pip. ʒxi. quartis horis.

In the evening, she complained of pain at the back of the chest; the respiration was difficult, and she experienced that peculiar sensation in the throat called *globus hystericus*. Capiat Hyd. Submur. gr. iij.; Opii gr. i. horâ somni.

2d, mane.—Has passed a very restless night. Bowels much relaxed, the motions black and offensive; abdomen tense, and tender on pressure; respiration quicker, but not so difficult. Ordered calomel and opium every three hours, and a blister to the abdomen.

Vespere.—She is evidently sinking; pulse 150; the extremities are warm, and the skin soft.

At one o'clock on the following morning she expired.

Sectio cadaveris, thirty-three hours after death. Head: There was slight congestion in the vessels of the brain, and, on cutting through its substance, a greater number of bloody points were observed than in a healthy brain. Thorax: The viscera appeared quite healthy. Abdomen: There was a pretty copious effusion of dirty-looking serum mixed with that curdy matter so common in these cases; the peritoneal vessels were in a few parts more turgid than natural, though by no means generally so. One of the round ligaments presented the appearance of inflammation. The external surface of the uterus was perfectly healthy; the internal was not examined, as I wished to have the uterus entire: it was of large size, and flabby; from its cavity, a quantity of coagula was expelled by pressure.

CASE III. Mrs. S. was delivered on the 21st of February, after a very natural labour. I saw her on the 23d, and found that she had this day been seized with a rigor, followed by heat, pain in the belly, and profuse perspiration: her pulse was 120, but soft, and, since the occurrence of the perspiration, the pain had subsided. I was in hopes that this might turn out a mere case of ephemera, and, as there seemed no necessity for active measures, I prescribed small doses of calomel and opium, with a view of tranquillizing the system.

24th.—Much to my annoyance and astonishment, I found that the woman who acted as nurse had got her out of bed, and I found her sitting in a chair: she expressed herself easy, 25th.—Worse. Pulse 120, and with some slight degree of power; there is severe abdominal pain. Venæsectio ad ℥x. Capiat Cal. gr. ij.; Opii gr. i. tertia quaque horâ.

26th.—Head slightly affected by the opium; pain less; pulse 120; tongue furred. Hirudines xv. abdomini applicand., with constant fomentation.

The treatment of this case not being registered at the time, I cannot state what medicine was ordered, though I believe it was Mist. Salin. cum Ant. Tart.

27th.—Very much worse. Pulse 140; respiration difficult; there is a curious involuntary twitching of the muscles of the lip; tongue cleaner; abdominal pain very great, and there is much distention. This was relieved by an oil-of-turpentine draught; a large blister ordered to be applied to the abdomen.

In the evening, it was evident she was sinking, and therefore, although in great pain, I ordered her Ammon. Carb. gr. iij. omni horâ. About five o'clock the next morning, she expired in great agony.

Sectio cadaveris, thirty-five hours after death. The intestines were greatly distended with air; the peritoneum lining the cavity rather more injected than usual, that lining the bowels much more so; the convolutions were united by slight adhesions, by which also the omentum was bound to them; there was a large effusion of turbid serum, with a quantity of curdy matter. The uterus pale externally. The internal surface of the stomach appeared healthy: there was, however, a quantity of dark-coloured secretion contained within it. Effusion of the same character as in the abdomen had taken place in the chest, but it did not contain so much curdy matter. The lining membrane of the trachea was much injected.

CASE IV. Mrs. K. was delivered of her third child on the 17th of January, after a very easy labour, and was doing very well till the 21st, when she was seized with a rigor, accompanied with pain in the uterus; pulse 140. Ordered twenty leeches to be applied to the abdomen. Calomel and opium every four hours.

22d.—She is quite free from pain; feels very weak and depressed; pulse 150. Was sitting up in bed, nursing her child. Bowels have been twice opened today.

In the night she was seized with vomiting, and, whilst her husband went to fetch a neighbour to her assistance, she expired. An inspection of the body could not be obtained, on account of the interference of the parish-officers.

Case V. Mrs. M. was delivered of her fifth child on the evening of the 24th of February. I saw her at half-past nine P.M. on the 26th, and found that she had had no bad symptoms till last night, when she was seized with violent pain in the abdomen, somewhat similar to afterpains, viz. occurring only at intervals, so far as regarded the violent paroxysms. In the night a rigor came on, followed by heat, and subsequently by perspiration. She is still complaining of great pain in the uterine region, both before and behind. The uterus is of large size. Pulse 124, and very feeble; the tongue had a brownish stripe down the middle, but was clean at its edges; pressure to a considerable extent could be borne without greatly increasing the pain, and she could turn in bed without much difficulty. The skin was dry, but not particularly hot; the lacteal and lochial discharges continue natural. She had experienced great uneasiness in the head, accompanied with dizziness and ringing in the ears. Capiat statim Hyd. Submur. gr. iij.; Pulv. Opii gr. ij. Utatur fotus abdomini.

Half-past one P.M.—Feels easier. Pulse 108; head tranquil; tongue more generally white. Has had no motion since delivery. Capiat statim Pulv. Rhei ℈i.; Potass. Sulph. ℈ij.; Aq. Menth. Piper. ʒxi., et post alvus respond. Pulv. Opii gr. iss.

Half-past four P.M.—Medicine not operated. Pulse 120, very powerless; pain relieved. Habeat statim enema commune cum Ol. Terebinth. ℥iss. To take the opium pill after the bowels have been moved. Tongue dry, and browner.

Half-past seven P.M.—No evacuation has taken place; has a feeling of tenesmus. Rep. Enema sine Terebinth. To take beef-tea.

February 27th, nine A.M.—Had two or three injections last evening, but no motion was procured till three o'clock this morning, which produced relief; after which she took the opium pill ordered yesterday. She is now in considerable pain at the bottom of the abdomen; pulse 120, but more firm; feels a disposition to sleep, but cannot; the lochial and lacteal discharges continue. Complains of thirst; tongue furred, but not dry; is much oppressed with wind. Capiat secundis horis Sodæ Tart ℈i.; Syr. Papav. ʒss.; Aquæ Menthæ Pip. ʒx.

Three P.M.—Pulse 140, probably somewhat accelerated by my sudden entrance, as she was at that period dozing; tongue brownish, and rather dry; the abdomen evidently distended with air, for, upon gently percuting it, a sound was emitted somewhat like a drum; the skin warm and dry, but not hot; countenance anxious, but not distressed; milk and lochia continue. Seeing the want of success which had attended the previous cases, in this instance I avoided very active measures, and endeavoured to temporise, in order to give nature a chance of doing what art did not seem able to effect. The chamomile bag previously ordered was directed to be continued; its exterior to be sprinkled with Ol. Terebinth.

Nine P.M.—She is no worse: pulse 120, and more steady; tongue brownish and dry. Has had a motion, and passed her urine; the milk and lochia continue. The chamomile bag with the turpentine was applied very hot, so as to produce considerable pain, and it had been therefore removed, for, on examining the abdomen, it was considerably reddened as if scalded, which was in fact actually the case. The breathing was rather hurried and laboured; skin warm and dry; there was great thirst. Ordered her a little beef-tea, and to take at bed time Cal. gr. v., Pulv. Opii gr. iij., with the hope of inducing sleep.

February 28th, half-past nine A.M.—Has had but little sleep, though she has been dozing; can turn much easier, but there is still pain in the belly, which is distended with air; there is also evidently an effusion of fluid into the abdomen. Pulse 128, and steady; tongue not quite so brown or dry; the lacteal and lochial secretions continue, though in small quantities. Wishes to have some boiled milk, which was allowed her. Breathing slower, more deep, and not so laboured. Rep. Sodæ Tart. ʒi. secundis horis.

Two P.M.—Not quite so well: pulse 136; tongue much more clear at the edges, the crust peeling off; secretions continue, but in sparing quantities; feels thirsty and qualmish at the stomach. Has had one motion; a considerable quantity of flatus passed with it. Capiat Haust. Effervescen. secunda vel tertia quaque horâ.

March 1st, half-past nine A.M.—Has passed a very bad night. Vomited frequently, the matter ejected being green and very bitter to the taste; has also had two or three loose offensive motions; abdominal swelling has increased, and there is much more tenderness on pressure; the pulse, however, has fallen to 118, and is more full. The countenance is very bad. She has not been able to take any food, in consequence of her irritable stomach. The tongue much the same as last night, viz. very red round the edges, with a thick white streak in the middle, but it is quite moist. The obvious indication was to relieve, if possible, the stomach, for which purpose I ordered her Hyd. Subm., Pulv. Opii āā gr. i. omni hora per quatuor vices; and a large blister to be applied to the epigastric region.

Half-past six P.M.—Sickness perfectly relieved; tongue nearly clean; pulse 130; very little pain; bowels also settled. Has had a good deal of uneasy dozing, perhaps the effect of the opium. Took a little tea, and a small piece of toast, and says she relished it. Ordered her to take slight nourishment, and to omit medicine for the night, there appearing no indication to be fulfilled.

March 2d, half-nine A.M.—Has passed an uncomfortable night, though she has had frequent dozings. Countenance yesterday and today exceedingly pinched, presenting much the appearance of a patient labouring under an attack of common fever. Appetite bad; mouth clammy; tongue dry, and of a brownish-red appearance; feels very weak. Has had a copious liquid evacuation, which is rather lighter than usual, but not particularly offensive. Blister has acted well. Abdomen very much distended with air. Has just taken a small quantity of boiled milk, but did not enjoy it. Head feels uneasy; pulse 128, and feeble. I determined to try the effect of the sulphate of quinine, of which I ordered her two grains, with five grains of capsicum, every hour, for four hours.

Seven P.M.—Evidently worse: pulse 130, and very feeble; tongue moist, but red; stomach and œsophagus feel very hot, which she attributes to the pills; great thirst, and a very distressing degree of restlessness. Capiat secunda quaque horâ Pulv. Opii gr. ij., Hydr. cum Cretâ gr. v.

She expired about eleven o'clock the next day.

Sectio cadaveris, twenty-two hours after death. When the cavity of the abdomen was opened, the intestines were observed to be considerably inflated, their peritoneal coverings much injected, and presented a dull lurid appearance; that portion of the membrane which lined the muscles of the abdomen was greatly injected in those parts which were in contact with the convolutions of the intestines; there was also a fulness in the vessels of the peritoneum generally. The surfaces of the peritoneum covering the intestines were slightly agglutinated by an unorganized substance. There was a large quantity of brownish, muddy effusion, mixed with a number of flakes, of a curdy consistence. The omentum greatly injected. The uterus pale and flabby externally, the follicles around its neck enlarged, and filled with a tough secretion; its substance pale and healthy, both without and within. On examining the peritoneum which lined the diaphragm, it was seen to be exceedingly injected, more so than at the lower parts: it was very easily peeled off the liver, which was soft in texture, as was also the spleen. There was a marbled appearance in the interior of the stomach, with numerous patches of extravasated blood under the mucous membrane. The mucous membrane of the rectum was partially inflamed. There was also slight unorganised adhesions between the two surfaces of the pleura.

CASE VI. Mrs. O. was delivered of her first child on the 26th of February, and was doing well till the 2d of March, when she experienced a rigor, followed by heat and intense pain in the abdomen: the pulse was rapid, though feeble. My pupil, Mr. WILSON, ordered her ten leeches to the abdomen, and calomel with opium through the night.

On the following morning, at nine o'clock, I saw her: the pulse was 140, and rather of a doubtful character, not altogether without power; the tongue was moist, the head very painful, and she vomited frequently. The abdominal pain has been relieved since the leeches were applied. Venesectio ad ℥x. To apply the chamomile bag wetted with oil of turpentine to the belly; and, with a view of relieving the sickness, to take small doses of Syr. Papav. with Soda Tart. every two hours.

Half-past two P.M.—Found her on her side in a sound sleep; pulse had fallen to 130, and very feeble. She appeared quite exhausted. Stomach irritable, but has retained her medicine.—Repetantur.

Nine P.M.—Pulse 136, and extremely feeble; tongue white, but moist; head heavy, scalp hot; can bear considerable pressure without flinching, but lies with her knees bent towards the pelvis. Lochial discharge has ceased; has had no motion; there is nausea, but no vomiting. She does not notice the child. The blood is slightly buffed, and cupped; the layer of buff only slightly adherent to the crassamentum.

March 4th, ten A.M.—Feels easier: has had four motions; pulse 110; tongue coated in the middle, but clean at the edges; feels low and faint. Plenty of lacteal, but no lochial discharge. Abdomen tender, but she can lie with her legs extended; head easy; nausea relieved. Has had a tolerable night.—Rep. Soda Tart.

Nine P.M.—Pulse 110. Expresses herself better. Tongue white, but more moist; there is no pain in the head; scalp rather hot. Complains of tenderness and soreness in the uterine region. Has had no motion.—Continue the chamomile bag and the medicine.

March 5th, nine A.M.—Not quite so well. Pulse 110, feeble; tongue white and moist; pain and uneasiness on pressure chiefly in the right groin; feels full and uneasy in the abdomen. She had taken, an hour ago, Ol. Ricini ʒij., which had not operated. I ordered it now to be repeated, conjointly with Ol. Terebinth. ʒv.

Ten P.M.—Pulse 104, rather fuller and regular: tongue white and moist. Has had three watery motions, of a brown colour; has felt several times during the day an inclination to vomit. There is a little increase of pain in the right side of the abdomen and groin; scalp cooler; plenty of milk.—Continue the chamomile bag and turpentine. Cap. statim Liq. Opii Sedativ. ♏xv., et repet. in nocte si opus sit. (Both doses were taken.)

6th.—Has passed a very comfortable day, though she slept but little during the night. Pulse down to ninety-eight, soft and round. Still pain in the abdomen on pressure; no sickness; plenty of milk, and has tonight a little lochial discharge. Has had no motion.—Capiat cras mane Pulv. Rhei ʒss.; Pot. Sulph. ʒi.

She has been asleep nearly the whole of the afternoon.

From this time she gradually recovered.

Case VII. Was called to Mrs. K. at three o'clock P.M. on March 3d, who was delivered of her first child on the 1st instant. She had experienced several rigors, followed by intense heat over the whole surface of the body; great thirst; pain in the head; heat of scalp; flushed yet cheerful countenance; pulse 130, and rather feeble; considerable pain in the lower part of the abdomen; scarcely any lochial discharge. She has vomited frequently. As she was a young woman who had been previously healthy, I thought it safer to abstract about eight ounces of blood, which made her very faint. Her bowels had been freely opened yesterday. Ordered her Liq. Ammon. Acet. ℥ij.; Liq. Ant. Tart. ʒiij,; Syrup. Croci ʒiss.; Mist. Camph. ℥vi. M. cap. coch. ij. quartis horis.

Eight P.M.—Much relieved. Head easier; tongue white and furred; pulse 130, and feeble; great heat of scalp; abdominal pain less.—Pergat.

March 4th, twelve P.M.—Tongue much cleaner, and moist; less thirst; head easier. There is still considerable pain in the uterine region when pressed upon. No lochial secretion, and less lacteal, than yesterday. Was very restless during the fore part of the night. Diarrhœa then came on, which relieved her greatly. She can now lie with her legs extended without pain. Has much less thirst and heat; head perfectly relieved; pulse 114.—Rep. Mist. Salina.

Nine P.M.—Much worse. Soon after I left in the morning, the pain in the abdomen returned, and is now very great; the slightest pressure gives pain. Has had many liquid evacuations. The head is easy; pulse 128, and very feeble; tongue covered with a white fur; countenance anxious and flushed. She also complains of pain in the chest.—Applic. Empl. Lyttæ amplum scrobiculo cordis. ℞. Confect. Opiat. ʒiss.; Conf. Aromat. ʒij.; Mist. Cretæ ℥viij. M. capiat coch. ij. omni horâ.

March 5th, seven A.M.—Excessive abdominal pain always present, but aggravated at intervals; pulse 120, and feeble; tongue brown and dry. Describes her pains as shooting from one side to the other, and says they are much worse than labour pains. Headach gone, but scalp still hot; has vomited once; when any fluid is taken, she feels as if she was bursting; her countenance was anxious, and she was constantly moaning and crying out. Diarrhœa is checked; lacteal secretion continues. Ordered the chamomile bag, with turpentine sprinkled over it, to be applied to the abdomen, and to take Liq. Opii Sedat. ♏xv., Aq. Cinnamomi ℥i. statim. This was not taken till half-past eight.

Half-past nine A.M.—Much the same. Rep. Haust. Anodyn., and to take another with twenty-five minims of the Liq. Sedat. in an hour from this time, if the pain continue.

Two P.M.—Has taken both doses of the Liq. Opii Sedat. and feels much easier: the pulse has fallen to 104, and she is free from pain, except when pressure is applied. Can turn with less difficulty.

Half-past nine P.M.—Not quite so well. Pulse 120; tongue rather more moist, but still brown; has had no motion; feels pain on pressure. Has vomited several times. Secretion of milk increased.—Capiat hora somni Syr. Pap. ʒi.; Liq. Opii Sedativ. ♏xx., et repet. in nocte si opus sit. Capiat mane primo Olei Terebinthinæ ℥ss., Olei Ricini ʒiij.

6th, nine A.M.—Took both doses of the opium, but had no sleep: this she attributes to her being disturbed by her child. Vomited soon after taking the turpentine. Pulse 120; tongue streaked, white and brown; abdominal pain seems extending higher up, being now worse in the hypochondrium. Has had no motion.—Habeat statim Enema commune, et capiat omni horâ vel horæ dimid. Antim. Tart. gr. ¼.

Half-past one P.M.—Worse. Pulse 126; tongue brown and dry. The injection brought scarcely any thing away with it. There is great pain in the hypochondriac regions, the inflammation apparently extending to the peritoneal surface of the diaphragm, as there is great pain on respiration. Scarcely any milk.—Rep. enema, and apply warm turpentine cloths to the parts in pain.

In the evening the pain had increased, and the pulse was rising. She continued in great torture till near midnight of the 7th, when she expired. For twenty-four hours before her death, relief was attempted, though in vain, by the exhibition of large doses of Battley's solution of opium.

Sectio cadaveris, sixteen hours after death. The external appearance of the body was much changed; the countenance pinched, the lips livid; the hands clenched and blue. Different parts of the body also presented a mottled bluish appearance, similar to what is frequently observed in children who have died in convulsions. The muscles, when cut through, appeared of a dark colour, and the intestines greatly distended with air. The peritoneal covering of the intestines was very turgid with blood, but that lining the abdominal muscles not so much. There was a large effusion of the same turbid serum which was observed in the other cases, mixed with large flaky deposits: none of these were situated between the folds of the intestines; they were perfectly free, having no kind of adhesion between them. The ovaries were exceedingly soft and pulpy, and, when pressed between the fingers, seemed to be resolved into the same kind of curdy matter which was effused into the abdomen. The liver was immensely enlarged, but healthy.

As the friends were anxious that the body should be disfigured as little as possible, the ribs were not divided, but an opening was made through the diaphragm into the chest. The lungs appeared healthy, but large masses of curdy substance were adhering to the costal pleura, the same in appearance as in the abdomen.

CASE VIII.—Mrs. R. was delivered of her seventh child on the 28th of February, after a very easy labour. Eight hours afterwards, she appeared low and desponding, and was covered with a profuse perspiration; the pulse soft and natural. She complained of pain in the side of the chest. The uterus hard and of large size; lochia natural; secretion of milk not commenced. There is heaviness and a little wandering in the head, probably caused by a dose of opium given her after she was placed in bed. She has a very irritating, hacking sort of cough, which lasted almost incessantly for several hours after delivery.—Applic. Emp. Lyttæ lateri dolent, et cap. Mist. Salin. quartis horis.

March 1st.—About twelve o'clock had a rigor for about twenty minutes, followed by heat and perspiration. Has had a gnawing pain in the uterus all night; felt it before the rigor came on; is increased by firm pressure. The uneasiness in the head still continues; pulse 120, regular and round; tongue moist, with a slightly brownish fur; has frequent flushes of heat, and sickness at the stomach, with retching; experiences pain when pressure is made on it; perspires much. Fluid can be felt in the lower part of the abdomen. Chest much relieved by the blister.—Apply chamomiles to the abdomen.

Four o'clock P.M.—Pulse 140; tongue moist and white. Has had a good deal of purging, the stools black and offensive; vomited about two pints of a viscid yellow fluid. Head giddy and wandering. Has taken nothing but gruel and barley-water.—℞. Haust. effervescens p. r. n. sumend. Hirudines viij. temporibus.

2d, eleven A.M.—Has had no sleep all night, and has been slightly delirious; complains of pains in the limbs and head. The leeches were not applied till this morning, and then only four of them. Pulse 132; tongue rather coated, but not dry; no lochia. Vomited up a brown yellowish fluid; but, after taking one of the effervescing draughts, the secretion became green.—℞. Hyd. Submur. gr. iij.; Ext. Coloc. c. gr. iv. fiat pil. h. s. s. ℞. Æth Sulph. ℥iss.; Aq. ℥ivss. M. fiat lotio capiti applicand. V.S. ad ℥xij. Emp. Lyttæ scrobic. cordis.

Four P.M.—Pulse 120; tongue moist and clean; head hot and heavy: no pain in the abdomen; no lochia nor milk.—℞. Sulph. Magnes. ʒiss. secundis horis.

Nine P.M.—The retching has continued, more or less, all day. The medicine has produced two black and offensive motions. She feels very weak and low. Ordered her to take some beef-tea. ℞. Liq. Opii Sedat. gtt. xx. h. s. s.

3d, ten A.M.—Pulse 120; cerebral symptoms relieved; tongue clean and moist; the sickness has returned; has had a little sleep.—℞. Sodæ Tart. ʒss.; Syr. Pap. Alb. ʒi.; Aq. Menth. Pip. ℥iss. M. fiat haust. omni horâ sumend.

One A.M.—Has a troublesome cough; sickness has continued till within the last hour; skin moist and natural. She feels much better, and has had no motion since last night.

Three P.M.—Pulse 130; tongue tolerably clean; feels sick; more pain and heat in the head.

Nine P.M.—Pulse 110, weak, and without power, increased by the slightest cause. Tongue white, coated, and moist. No pain in the abdomen, which is greatly distended. The uterus is very much enlarged. She has dyspnœa, with a mucous rattle; skin moist; very little milk. Bowels not opened today.—℞. Liq. Opii Sed. gtt. xx.; Spt. Ammon. Aromat. ʒss.; Aq. Menth. Pip. ʒx. M. fiat haust. horâ somni sum. Rep. Lotio capiti.

4th, twelve A.M.—Bowels have been relieved, the motions whitish. The draught procured but little sleep, and, when she awoke, she was teased with rattling in the throat; has pain in the stomach on pressure; dyspnœa still continues; pulse 130, small and vibrating; tongue white and coated. Head feels relieved, though the scalp is hot.—℞. Liq. Ammon. Acet. ℥ij.; Liq. Ant. Tart. ʒiij.; Syr. Croci ʒiss.; Aquæ Piment. ℥vi. M. capiat cochl. magn. ij. quartis horis.

Half-past nine P.M.—The pulse has risen to 160, undulating and powerless; tongue moist, white and coated; no abdominal pain. Has diarrhœa; the motions and urine pass involuntarily. Ordered her some arrowroot and port wine. ℞. Conf. Opiat. ʒiss.; Conf. Aromat. ʒi.; Mist. Cretæ ℥viij. M. capiat ℥i. secundis horis.

In the night she became convulsed, and showed great delirious excitement; and next morning, a little before eight o'clock, she expired.

Sectio cadaveris, twenty-five hours after death. The body was quite inodorous. The blood-vessels of the dura mater were slightly turgid, and there was a generally enlarged state of the vessels of the brain, with a very small quantity of fluid in the ventricles. There was some fluid in the pericardium. The lungs appeared healthy in structure, though injected with blood in some parts: they were much pressed out of their natural position by the enlarged state of the liver and spleen. The peritoneum was generally injected; there were large depositions of a flaky substance. The convolutions of intestines were connected together by a soft layer of gelatinous matter, easily broken through. The uterus was of large size, with a slight blush on its external surface: the substance, however, was firm and pale. The effusion of dark-coloured fluid very decided, though less in quantity than most of the other cases. The fallopian tubes were much injected. The spleen and liver were very much enlarged, but healthy in structure.

Case IX. Mrs. G. was delivered, on the 18th of March, of her second child. On the 19th, she did not seem very well, though there were no urgent symptoms: the pulse hurried; the lower part of the abdomen a little tender, though considerable pressure could be borne.

On the 20th, she was much the same. Has taken two doses of castor oil, without having had a motion; has had two or three creeping sensations, followed by flushings and perspiration. In the evening, the bowels were relieved, and she expressed herself very comfortable: pulse, however, not reduced. She is quite free from abdominal pain; secretion of milk copious.—Capiat statim Hydr. Submur. gr. iij., Pulv. Jalap. gr. xv.

21st, mane.—Has had several motions, and says she is better, though her pulse remains at 120; is thirsty; tongue rather white; lochia in small quantities, and fetid.—℞. Liq. Ammon. Acet. ℥ij.; Liq. Ant. Tart. ʒiij.; Syr. Croci ʒiss.; Mist. Camph. ℥vi. capiat coch. mag. ij. quartis horis.

Two P.M.—Feels much worse. Has had another creeping sensation, hardly amounting to a chill, followed by flushing and uneasiness in the head; the pulse 140, and rather feeble; the tongue much more white, but not very dry. There is now a diffused tenderness over the abdomen, and the intestines are evidently inflated with air: can turn, however, without much difficulty. I placed her in the erect posture, and removed about twenty-four ounces of blood, which made her exceedingly faint, and, in order to keep up this effect, I placed the pillows so as to prevent her head from again slipping down. I gave her, during the bleeding, Hydr. Submur. gr. iij. Pulv. Opii gr. ij., and directed a dose of the saline mixture previously prescribed to be given her in two hours. She felt most oppressively faint, her pulse sank to 120.

Five P.M.—Still remains faint. Pain in the uterine region gone; bears pressure better; head easier; pulse 136, and rather feeble; she feels sleepy.—Applic. abdomini Hirudines x. Capiat omni horâ Hyd. Submur. gr. i.; Pulv. Opii gr. ss.; Antim. Tart. gr. $\frac{1}{6}$, in pil.; et cras mane Ol. Terebinth. ʒij. cum Ol. Ricini ʒvi.

Nine P.M.—Leeches bled well. Feels perfectly free from pain; tongue white, but a little cleaning at the tip; pulse 140, and thready; thirsty, skin rather dry. Has had no sleep. Continue the calomel and opium.

22d, half-past seven A.M.—Had about four hours' sleep in the night. Has taken ten doses of the pills; took the draught at half-past five, but has had no motion. She was perfectly easy till half-past six, when the pain returned, which was chiefly situated in the right iliac region : can bear considerable pressure without producing violent pain, though there is a degree of tenderness; skin dry. Secretion of milk and lochia continue, though in sparing quantities. Tongue white; countenance, since the bleeding especially, almost blanched. Can turn in bed tolerably easy, and talk with a cheerful tone of voice. Pulse rather more than 140, very small and thready.—Habeat statim Enema commune cum Ol. Terebinth. ʒiss.; and, if not easier after its operation, to apply eight more leeches to the right side of the abdomen. Capiat omni horâ Hyd. Subm. gr. ij.; Pulv. Opii gr. ss.; Ant. Tart. gr. ⅓, in pil.

Twelve M.—Worse: pulse 150. Has had two injections, yet nothing passed but air, at least no feculent matter. Tongue cleaner, countenance very anxious; abdomen tumid. Has taken four doses of the pills. To take half a pill every hour.

Half-past two.—Much the same : has passed some wind, but no feces. Gave her an enema, which returned immediately, with a small portion of feculant metter: feels as if she was about to have a motion. Abdomen is now soft and flaccid, and the tumefaction has subsided.

Half-past six.—Soon after I left, the patient had one loose motion, but she is still in pain; has also passed a large quantity of water. Pulse 160; tongue more moist; very thirsty; skin hot, but not quite so dry. I resolved to resume the calomel pill, and therefore ordered her Hydr. Submur. gr. ij.; Ant. Tart. gr. ⅓; Pulv. Opii gr. ss. statim, et repet. horâ nonâ. She expresses a great desire for sleep; abdomen again distended.

She went on in much the same way till the next evening, when she died.

Sectio cadaveris, thirteen hours after death. The abdomen was much distended. The peritoneum covering the intestines highly injected, that lining the muscles but slightly. The intestines were enormously inflated, excepting the ascending portion of the colon, which was greatly constricted. The substance of the uterus was healthy, but its peritoneal covering had a slight blush on it. The convolutions of the intestines were quite free, there being no deposit between them. The usual effusion in the peritoneal cavity was seen in abundance. There were also patches of inflammation on the peritoneal surface of the liver.

CASE X. Mrs. L. was delivered at seven P.M. on the 25th of March, and was quite comfortable till three o'clock in the afternoon of the 27th, when she was seized with a rigor, followed by heat and throbbing in the head. One of my pupils, Mr. **Buchanan**, saw her at half-past six, and found the skin hot, face flushed; pulse 140, tongue clean and moist; considerable pain, chiefly referred to the back; is very thirsty. He removed about twelve ounces of blood. ℞. Ol. Ricini ℥i. statim sum.

When I saw her at eleven, the pulse was still 140, and feeble; the countenance pale; the uterus enlarged, and great pain is felt when pressure is made on it; the lacteal and lochial discharges natural; she complains of much thirst. The bleeding had caused a great degree of faintness, which remained for a considerable time, but is now in some degree subsided. As the attack was so recent, I untied the bandage, and allowed about eight ounces more blood to flow, when she again became very faint. I recommended her head to be kept high, with a view of keeping up syncope. She had one motion whilst we were there, which was rather offensive and very costive. Capiat omni horâ Hyd. Submur. gr. ij.; Pulv. Opii gr. i.; Ant. Tart. gr. $\frac{1}{6}$.

28th, eight A.M.—Countenance quite blanched, lips pale; remained very faint after the bleeding. Has dozed a good deal. Tongue natural, abdomen easier, and not tympanitic: she flinches, however, when pressure is applied to the uterus. Pulse 130, and rather vibrating, giving to the finger an hemorrhagic twang. Had another large costive motion last night. Ordered the Cal. and Ant. Tart. to be continued without the opium, as the bowels were confined, and she seemed a little stupified by it.

Three P.M.—Much the same: pulse 140, tongue moist. Has had three motions: feels very faint. Not much abdominal tenderness, except when pressed upon.—Rep. Pil. cum Opio statim, et sine Opio omni horâ, if the bowels be quieted.

Eight P.M.—Seems worse. Pulse 140; rather more abdominal tenderness; is very restless; the lochial and lacteal discharges continue; is thirsty. Has had no motion since three o'clock. Her head seems a little wandering: says she is in no pain, but does not know why she is so restless. —Capiat secundis horis Cal. gr. ij., Pulv. Opii gr. $\frac{2}{3}$. Infricand. Ung. Hydr. fort. inter femora quartis horis.

29th, seven A.M.—Exceedingly faint, and has great pain; pulse 140, tongue rather brown and more dry. When asked how she felt, she replied rather sharply, "quite well."

Cannot bear pressure over the abdomen; is thirsty; has taken gruel through the day; feet cold; urine and feces pass involuntarily. She has taken the calomel pills through the day, and, as her bowels were relaxed, she was ordered a mixture composed of Conf. Aromat., Conf. Opii, et Aq. Menth. Piper. The ointment has not been rubbed in to the extent I wished: mouth not at all affected.

Ten P.M.—There is an evident amendment: pulse 120, skin soft and warm. Has had two drachms of Ung. Hydr. fort. rubbed in; tongue rather brownish, mouth not affected. Is in but little pain, except when pressed upon, and then she flinches greatly; feels very weak and faint. Wishing to give the mercurial plan a trial, and fearing to disturb her bowels by the internal administration of calomel, I ordered the fumigation of Hydr. Sulph. rub. ʒi., and directed it to be repeated twice in the night.

30th, seven A.M.—Pulse 130; has passed a very restless night; urine and feces pass involuntarily; eyes sunk. Used the fumigation once during the night, but refused it a second time. Is thirsty, and has continued moaning for the last forty-eight hours.

Three P.M.—Found her evidently dying: extremities cold, pulse hardly perceptible. In the evening I received a message, saying she was dead. An examination could not be obtained.

CASE XI. Mrs. W. was delivered March 26th, in the morning: she was doing well till ten o'clock on the following morning, when she was seized with a rigor, followed by heat and intense sore pain in the abdomen. One of my pupils called at three o'clock, and immediately removed about ten ounces of blood, which he states softened the pulse, but did not diminish its frequency, and, when he left her, it beat 140 strokes in the minute.

Five P.M.—The pulse is still the same, feeble and undulating; tongue clean and moist, the skin natural; there is great abdominal pain in the situation of the uterus and round ligaments, but in other parts pressure can be borne; the uterus is also enlarged; lochia lessened in quantity; abdomen distended, but says she was so after her last child. As the disease at present is confined to a comparatively small extent of the abdomen, and as the attack was recent, I considered it justifiable, notwithstanding the feebleness of the pulse, to repeat the bleeding, which I did to about eight or ten ounces: she then felt faint. I desired her to be kept in a semi-erect posture, to have twenty-four leeches to the abdomen, and to take every hour Hydr. Submur. gr. ij.; Pulv. Opii gr. i.; Ant. Tart. gr. ⅕.

Ten P.M.—There had been some delay in the application of the remedies: the leeches had just come off, and she had only taken two doses of the pills: was lying upon her side, and says she was easier than when upon her back; pulse 124 and soft, tongue clean and moist. Neither of the portions of blood was either cupped or buffed. Rep. remedia.

March 28th, seven A.M.—Has taken ten doses of the pills, and has dozed considerably during the night. Uterus diminished in size, and is less tender; there is pain in the course of the descending colon; abdomen tympanitic; pulse 120 and soft; has lost the undulating feel. Leeches have bled profusely Has had one motion in the night, which was natural: head easy. No milk, but says she seldom has any till the third day.—℞. Hydr. Submur. gr. iss.; Pulv. Opii gr. ss.; Ant. Tart. gr. ⅙, fiat pil. omni horâ sumend. Applicand. abdomini cataplasma anthemid. cum Ol. Tereb. Lochia continue.

Two P.M.—Says she is easier. I found her sitting upright in bed, taking some gruel: can bear pressure better; pulse 124, tongue tolerably clean and moist, abdomen tympanitic.

Ten P.M.—Found her much worse: head confused; was constantly moaning; abdomen much more distended, pulse 130. Ordered her Hirudines viij. abdomini, and the pills with gr. ¼ of opium, instead of gr. ss. Ung. Hydrar. fort. ℥ss. to be rubbed in between the thighs.

29th, noon.—Much surprised at finding her alive: her pulse upwards of 140, and so feeble as to be felt with great difficulty; abdomen tender, hands and feet getting cold.—℞. Ammon. Carb. gr. xxiv.; Tinct. Card. co. ʒiij.; Mist. Camph. ℥vi. M. capiat coch. ij. omni horâ. Bottles of hot water to her feet. In about two hours after this, she expired. No examination of the body was allowed.

CASE XII. Mrs. H. was delivered on the 28th of March, in the morning, after a remarkably easy labour. When she was visited at two o'clock on March 30th, she was found complaining of great pain in the abdomen, pulse ninety-two, and rather powerful. Sixteen ounces of blood were removed. ℞. Hyd. Subm. gr. ij., Pulv. Opii gr. ss., Ant. Tart. gr. ⅙, M. fiat pil. omni horâ sumend. Infricand. Ung. Hyd. fort.

Seven P.M.—At this time the symptoms are rather increased: pulse 108 and soft, great pain on pressure on the uterine surface, low down behind the symphysis pubis;

tongue clean and moist. The ointment has been rubbed in, by mistake, on the lower part of the abdomen, instead of the thighs. Soon after she was bled she had a very distinct rigor, followed by great uneasiness in the head. Has once vomited. Applicand. Hirudines xx. abdomini.

In the evening her pulse had risen to 136. The calomel and opium to be continued without the Ant. Tart. Mercurial fumigation was used at eleven o'clock, (Hyd. Sulph. rub. ʒi.) and ordered to be repeated every four hours.

31st, seven A.M.—The report at this time is, that she is easier: pulse 124. Has had no motion since the 29th. The mouth is not affected by the mercury, (has taken, since yesterday afternoon, fifteen two-grain doses of calomel, besides three mercurial frictions and three fumigations.) The fumigations were ordered to be continued. ℞. Hyd. Subm. gr. iij., Pulv. Opii gr. ss. fiat pil. omni hora sum. ℞. Ol. Ricini ℥ss. statim sum.

One P.M.—The pain in the abdomen is nearly gone: she can bear considerable pressure without flinching; tongue clean, pulse 130. Has slept for a considerable time, and had one loose motion, which suddenly passed away in the bed. A little sponginess of the gums is perceptible, though she says her mouth is not sore. Lochial discharge natural, but no milk. Has fumigated once since seven o'clock, and taken two doses of the three-grain pills. Ordered the fumigation to be repeated at two o'clock, and to take a pill every three hours till the mouth is affected.

Nine P.M.—Has had a good deal of refreshing sleep: pulse 138, full and soft; says she is in no pain, except when pressure is made on the umbilical region. The uterine surface, which was at first so tender, is now in its natural state. Has fumigated once, and taken two pills (three grains of calomel in each,) since the last report: her mouth feels rather sore, and the gums appear a little inflamed. Has had another loose motion.—Capiat tertiis horis Cal. gr. ij., Pulv. Opii gr. i.

April 1st, mane.—Worse: pulse 140, and has a great increase of pain. Her mouth is sore, and therefore two pills only were given during the night. Has had two motions. —Rep. Pil. et applic. Hirud. xx.

One P.M.—Evidently worse: pulse 140 and more feeble; the pain great; the countenance parched, and exhibiting great distress; the eyes sunk, tongue brown and dry; the mouth affected by the mercury; the bowels purged.—℞. Conf. Opiat. ʒiss.; Conf. Aromat. ʒij.; Aquæ Menth. Pip. ℥viij. M. capiat coch. ij. omni horâ.

The medicine relieved the pain and the relaxation of the bowels, but she died on the following morning.

Sectio cadaveris, seven hours after death. The abdomen was remarkably prominent, owing to the viscera being greatly distended with air; both peritoneal surfaces, viz. that lining the muscles and that covering the bowels, were greatly injected; the gallbladder immensely distended by an accumulation of bile; the omentum was turned up, its inferior surface resting upon the gallbladder. No adhesions between the convolutions of the intestine, and, although the effusion of serum into the abdominal cavity was large, there was but little curdy matter mixed with it. The veins of the uterus were pale, showing no marks of inflammation; its substance pale, and both surfaces healthy. The stomach contained a large quantity of black fluid, and on the mucous membrane there was a number of vascular patches: the same appearance was also observed in the duodenum.

Case XIII. Was requested, on March 29th, about three o'clock in the afternoon, by one of my pupils (Mr. Clutterbuck), to visit Mrs. P., who was in labour, and who seemed to be in a very low state: she was nearly as white as the sheet which covered her; the pulse about 100, and extremely feeble; the skin relaxed and cool, the vagina also relaxed and nearly cold. There was a constant pain in the abdomen, but no effect was produced by it on the os uteri, which was not half dilated; the remaining portion felt hard and thick. There was a constant drain of blood from the uterus, but not amounting to hemorrhage, though, in her exhausted state, it was more than she could spare. The membranes containing the liq. amnii were unbroken. She had been in a fainting condition several times: the discharge had not lasted more than an hour and a half. I gave her Tr. Opii ʒi. with a view of relieving the pain, and directed her to have a small quantity of nourishment frequently given her.

In the evening she felt better; was more warm; the pulse 108, and scarcely perceptible. Capiat Ext. Hyoscy. gr. x. horâ somni, et repet. post horas iv.

30th, half-past five A.M.—Was sent for in great haste, and before I arrived at the house the child was born, but dead: there was no hemorrhage, and she expressed herself tolerably comfortable. I saw her again at half-past nine: she was in the same state, but cheerful; she complained of the pain she had before and during labour, which was situated at the lower parts of the abdomen. She took through the day an anodyne mixture.

31st, eleven A.M.—Very ill: pulse 140; tongue whitish and rather dry; bowels very much distended; had a chill in the night; complains of pain in the abdomen, though considerable pressure can be borne. I considered the disease in such a constitution to be a mortal one, and yet I wished to try something: I gave her Cal. gr. x., Pulv. Opii gr. ij. and ordered Ol. Ricini ℥ss. to be given in four hours. Fotus communis abdomini.

Six P.M.—Remains in the same state: pulse 140, and feeble. Has had no motion. Capiat statim Ol. Ricini ʒiij., Ol. Terebinth. ℥i. Applicand. abdomini Emp. Lyttæ, et illin quartis horis inter femora Ung. Hydr. fort. ʒiij. Has had scarcely any lochial discharge since her delivery.

Ten P.M.—Pulse 140, small and wiry; complains of great pain, though a certain degree of pressure can be borne; tongue rather whitish, but not dry: has had no motion. She vomited up the greater part of the turpentine draught. Habeat statim Enema commune cum Sodæ Muriatis coch. magno. Rep. Ung. Hydr. et capiat Cal. gr. ij., Pulv. Opii gr. i. secundis horis.

She lingered till two o'clock in the morning, when she died. No examination was allowed.

One case of puerperal convulsions has occurred, which happened to a young woman in labour with her first child. When I arrived at the house, about eleven o'clock, I found her labouring under a most violent attack of convulsions, which had been repeated, with little or no intermission, for about an hour. The pupil in attendance (Mr. Morris) had removed about twelve ounces of blood, without the slightest relief, and had several times dashed cold water in her face without effect. The pulse, though rapid, was feeble; the lips had a leaden hue, and there were no marks of determination of blood to the head, which made us hesitate to repeat the bleeding. As, however, the force of the convulsions seemed increasing, another vein was opened, and twelve ounces more blood abstracted. No good effect, however, being observed to follow this practice, and as the parts of generation were lax and dilatable, it was agreed, with the concurrence of my friend and colleague, Mr. Doubleday, to finish the delivery by turning. My own opinion was rather in favor of craniotomy, as the female was of small size, and it was her first child; but, it being thought right to give the child a chance of life, I yielded, and agreed to turn. This operation was effected with some difficulty, for the head did not readily recede, but came down with the feet: at length I succeeded, and brought the child through the external parts. The placenta was soon expelled.

After delivery, the convulsions continued, and I left her about twelve o'clock to the care of Mr. Morris, who reported that soon afterwards a more violent convulsion occurred than before, accompanied with heat of scalp and flushing of the face, and that he, in consequence, removed about eight ounces more blood; and this last bleeding was followed by a great improvement in the symptoms. I saw her soon afterwards, and finding her head painful, and the scalp still hot, I ordered her eight leeches to the temples; the head to be kept cool by an evaporating lotion; and a Liq. Ammon. Acet. mixture.

From this time there was no convulsion, and she recovered without any untoward symptom; her chief sufferings arising from her tongue, which had been injured by her teeth during the paroxysms.

One case of active inflammation of the peritoneum has occurred, which was not very easily subdued: repeated bleedings, with the administration of calomel, so as to affect the mouth, at length proved successful. This female's pulse never rose above 100, and was attended with a very considerable degree of power.

In two or three instances, hemorrhage to a certain extent supervened, but in no case was it attended with any dangerous symptoms.

Several cases of what (for want of a better term) I have been in the habit of calling irritable peritoneum have occurred; the affection consisting of a very painful state of the membrane, the patient flinching on the slightest touch: there is, however, in general, no very great hurry of the circulation; the tongue is nearly clean and moist, and there is no great difficulty in turning round in the bed; the skin is also soft and a little damp, and the countenance does not exhibit that anxiety which it does in puerperal inflammation. Long-continued fomentations, with calomel and opium, have invariably effected a cure.

Upon reviewing the cases of puerperal fever, some observations naturally arise, but the length of the present paper precludes me from making them at present: they must therefore be deferred for a succeeding Number of this Journal.

93, Bartholomew Close; July 1830.

TEMPORARY LIGATURE.

Remarks upon the Question, Why has the Application of a temporary *Ligature, upon the principal Artery of a Limb, for the Cure of Aneurism, been sometimes considered insufficient to cause an Obliteration of the Vessel?* By Professor ANT. SCARPA.*

IN various parts of my treatise upon the Application of Ligatures to the principal Arteries of the Limbs, and in the appendix to my work on Aneurism, and particularly in my practical reflections upon the ligature of the principal arteries of the limbs, according to the method of HUNTER, I have proved, by facts from dissection and practice, that, in géneral, a ligature upon the principal artery of a limb, although it may completely obliterate that vessel, cannot at the same time cause obliteration of the anastamosing branches which exist between the lateral vessels and the principal trunk, from the ligature to the aneurismal sac, nor the obliteration of the collateral arteries which open directly into the sac. As the size of the anastomosing branches varies greatly in different individuals, it necessarily follows that the phenomena which succeed the application of the ligature also vary in different subjects after the operation, and that the return of the circulation of the blood in that portion of the artery comprised between the ligature and the aneurism may be more or less apparent. But this effect, which might at first lead to the opinion that the ligature was insufficient, does not prevent the ulterior cure of the disease. I have thus previously expressed my opinion upon this subject:† "It is said that, after the principal artery of a limb has been tied, it is possible that the blood may flow into the aneurismal sac by the anastomosing branches, and that the operation may thus be useless. Far from denying the possibility of the phenomenon, I believe, on the contrary, that it always exists, in a greater or lesser degree in different individuals, after the application of the ligature according to Hunter's method, but that the success of the operation is not interfered with. This is easily comprehended, if we reflect that the blood enters the tumor but in a very small quantity, and that it has not that impulsive force which is necessary to distend the sac, so that the slowness of its current favors the deposition of fibrous laminæ in the interior of the sac, the cavity of which is gradually filled and obliterated. This sanguineous mass is afterwards gradually absorbed, and the tumor is at length reduced to a very small volume."

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* Annali Univ. di Med. Janv. 1830.

† Opus. di Chirurgia, vol. ii. p. 121. Pavie, 1825.

The following case corroborates my opinion. A man, fifty years of age, had popliteal aneurism, for which the femoral artery was tied in the upper third of the thigh. The ligature was removed on the third day. From the moment the vessel was secured, the aneurismal tumor diminished in size, and ceased to pulsate. The day after the removal of the ligature, obscure and deep-seated pulsation in the tumor was perceived; but its volume was not increased, it remained of the same size as after the operation. On the following day, the tumor gradually diminished, and became harder; the pulsations became weaker, and insensibly disappeared, and the patient was perfectly cured.

In cases in which a temporary reappearance of pulsation in the aneurismal sac occurs, the pulsation is always feeble and obscure; the size of the tumor does not increase, but it continues of the same magnitude as immediately after the operation, and after the removal of the ligature gradually diminishes. But, when the operation has not produced the desired result, the obliteration of the artery, the blood continues to enter the sac with great force and rapidity, and thus distends it. An attentive examination of the tumor in these two cases, will prevent us from confounding them. In the last particularly, compression of the vessel above the tumor suspends all pulsation in it, and the pulsation returns when the compression is removed. When the *temporary* ligature has obliterated the artery, the diminished volume of the tumor coutinues after the removal of the ligature; and, if subsequently obscure pulsation is observed in it, it is not until after the lapse of days, weeks, or even months. This variation in the period at which pulsation in the tumor occurs results from the more or less rapid dilatation of the anastomosing branches in different subjects. When aneurism of the femoral artery is seated near the groin, a little below the origin of the profunda, it is necessary to apply a ligature upon the external iliac above the epigastric and circumflex arteries. Now, in this case, these two arteries become, from their communication with the branches supplying the parietes of the thorax and abdomen, two anastomosing vessels, which gradually transmit a more or less abundant quantity of blood into the principal trunk below the ligature. Here we might have the greatest apprehension of failure from the operation; but experience proves its success: for, although the epigastric and circumflex arteries rapidly and considerably dilate, yet the current of blood in them has no longer the same velocity, nor does it enter the aneurismal sac with so much force. Besides, the blood, transmitted by these two arteries into the femoral trunk, finding a free and ready issue by the profunda, the greatest part of it follows this track, whilst a very small quantity penetrates the sac, and may give rise to very obscure pulsations in it. This slow deposition of blood in the tumor is favorable to the ulterior obliteration of the cavity. Since experience demonstrates most positively, that when the aneurismal tumor remains, after the removal of the ligature, of the same size to which it had been reduced by the operation, that the obliteration of the artery is not the less certain because obscure and deep-seated pulsations are detected: it is clear that it is perfectly useless to introduce a finger into the wound, for the purpose of ascertaining whether the blood enters the vessel below the point at which it had been secured.

The following cases, related by different surgeons, corroborate the preceding opinions.

Case I. Demonti André, æt. forty, while carrying upon his shoulder a heavy and pointed sithe, stooped down to the ground: the sithe fell from his shoulder, and pierced the calf of his right leg. A stream of blood immediately flowed from the wound, and the man restrained the hemorrhage by pressure. He was carried to the hospital, and M. Kruch examined the wound. There was now no bleeding. Adhesive plaster and cold lotions were applied, and perfect rest was ordered. For nine days no particular symptom occurred, and the same treatment was continued; when the patient, in stepping hastily from his bed, immediately perceived, above the cicatrix, a hard circumscribed tumor, presenting synchronous pulsations with the radial artery, which pulsations disappeared when the femoral artery was pressed. It was evident that there was aneurism of the posterior tibial artery, and consequently a ligature was applied upon the femoral artery in the upper third of the thigh, by M. Kruch, on the 21st of August. Immediately after the operation, the pulsations in the tumor ceased, and its size was much diminished. The limb was surrounded with bladders filled with hot water.

The ligature was removed on the third day: there was not the slightest pulsation in the tumor. Wound looked healthy.

About five weeks after the operation, the wound was completely healed, and there was now observed in the tumor (the size of which was much diminished) very distinct, yet deep-seated and feeble, pulsations. They were more evident when the centre of the tumor was compressed. The weakness of these pulsations, which were not attended by the slightest increase in the size of the tumor, induced Dr. Kruch to believe that they arose from some anastomosing branches which entered the trunk of the femoral artery below the ligature, or the aneurismal sac itself, and not from the entrance of the blood directly through the artery which had been tied. Acting upon this opinion, the only treatment adapted was the application of cold astringent lotions, to assist the efforts of nature in the obliteration of the aneurismal sac. The tumor gradually became harder, the pulsations in it less and less, and the patient was perfectly cured. On the 12th of October, he rose without any other inconvenience than weakness in the affected limb, upon which a bandage was applied, with directions that it might be worn for some time, when he left the hospital.

This case of aneurism of the posterior tibial artery, analogous to several others that have been published by myself and other practitioners, clearly proves that a ligature applied to the principal arterial trunk of a limb not only cures aneurism of *it*, but also that of any of its principal divisions. It is especially in such cases as the above, where the wounded artery is deep-seated, that the improvement of surgery is manifest; for the practice adopted is much more advantageous than that of exposing the vessel in the midst of parts which are frequently in a state of gangrene, and tying it, with great difficulty, above and below the wound. It must be observed, that the success of applying a ligature upon the principal trunk, when one of its branches is affected with aneurism, is the more certain in proportion as the wound of the branch is near the union with the artery which is tied.

Case II. A. Giacomelli, æt. nineteen, of robust constitution, had the left brachial artery wounded in bleeding, in March 1829. Violent hemorrhage instantly occurred, and was arrested by a tight bandage. The pressure was continued for a month, and produced great inflammation. When the swelling of the limb subsided, an indolent pulsating tumor was perceived, exactly at the spot where the operation of venesection had been performed. As the size of this tumor daily increased, the patient presented himself at the hospital of Pavia, four months after the accident.

Professor Cairoli found, at the bend of the arm, a swelling about the size of a hen's egg, which pulsated synchronously with the artery at the wrist, and had every appearance of varicose aneurism. A ligature was applied above the tumor, the 17th of July, by Mr. C. As soon as the artery was tied, the pulsations ceased in the tumor, and it diminished to about three fourths of its former size. The various phenomena which commonly succeed the application of a ligature upon the principal artery of a limb were observed. The arm was surrounded with bladders filled with hot water, and moistened from time to time with an emollient and warm decoction. On the third day, feeble pulsations were detected in the ulnar artery. On the evening of the 20th, (three days and a half after the operation,) Professor C., remarking that the tumor still continued to lessen in size, and that there was not the slightest appearance of pulsation in it, or below the point where the artery had been tied, divided the ligature, and removed it. No new symptoms followed.

The following night, the patient was restless; he felt much heat and pain in the forearm.

21st.—High fever. Pulsations in the ulnar and radial artery as strong as in the natural state; slight pulsations in the tumor, but no increase of its size; wound much inflamed, and the brachial artery immediately below the ligature pulsated violently. As the tumor had not increased in size, M. Cairoli observed to the pupils, that the pulsations in it, and in the brachial artery, arose entirely from the return of blood by the collateral branches, and not from the non-obliteration of the brachial artery where it had been tied. The issue of the case fully confirmed this opinion. The inflammatory symptoms were actively treated by antiphlogistic means, and emollient fomentations around the limb; the tumor was covered with iced water, and continued to decrease in size. By the 4th of August, (fourteen days after the removal of the ligature,) all the pulsations had entirely ceased. The wound soon healed, and the patient left the hospital perfectly cured.

Case III. Nicolas Garolfi, æt. thirty, was admitted into the hospital of Plaisance, to be operated upon for popliteal aneurism. The tumor was the size of a fist, and situated in the hollow of the right ham. Professor Morigi tied the femoral artery, the 28th of January, 1824. The pulsation ceased immediately in the tumor, as well as the pains which had been before felt in it.

February 1st.—Ligature removed. The tumor was diminished to about one half of its former size. The foot was warm, and but little sensible to the touch; the extremities of the toes were cold.

The tenth day, the wound had nearly cicatrised; the circulation was partly re-established in the lower part of the limb, which had recovered its natural warmth and sensibility. The leg could be bent upon the thigh without much difficulty.

Twentieth day.—State of the patient so satisfactory, that he was permitted to walk on crutches, the limb being bandaged.

Three days from the commencement of his taking exercise, feeble and deep-seated pulsations were felt in the tumor: perfect rest was consequently enjoined, and the tumor was covered with cold lotions. A most careful examination of the course of the femoral artery below the ligature was made, but not the slightest pulsation was detected. The dull and deep pulsation in the tumor continued for four days, but it did not increase in size. This pulsation insensibly diminished, and the patient rapidly recovered, and left the hospital perfectly cured fifty-six days after the operation.

Two years afterwards, the same person again appeared at the hospital, with popliteal aneurism of the left leg. The limb was much swollen, and therefore Professor Morigi deemed some delay prudent. After a few days' rest, the operation was performed, as it had been in the other extremity, with complete success. The cure was perfect in forty-three days. Three years have now elapsed, and the man enjoys good health.

It will have been observed, that in this patient the circulation, which was for a short time re-established in the sac by the anastomosing branches of the right femoral artery, was only manifested by weak and deep-seated pulsations in the sac, which occurred twenty-three days after the operation. It is evident that this phenomenon arose from the too early exercise in which the patient indulged. After the operation upon the left limb, no such symptom occurred, probably because the anastomosing branches were not so largely dilated on this side, and probably also because, during the whole course of the treatment, the patient remained perfectly quiet. It must, then, be from an unjust prejudice, or an absolute ignorance of the facts which are demonstrated by physiology and practical surgery, that the opinion is maintained that the treatment by the *temporary* ligature is more likely to be followed by a return of the disease, because pulsations may occur in the aneurismal sac some time after the removal of the ligature. It is also strange that this phenomenon should be attributed to the *temporary* ligature, inasmuch as it is just as likely to occur when the *permanent* ligature has been applied, after it has been spontaneously separated from the vessel, and discharged or removed from the wound. I could cite many examples of this fact, but the following will be sufficient: it was communicated by Dr. MONTHEUTH to Mr. WISHART, professor of surgery at Edinburgh.

A person had in the ham an aneurismal tumor, the size of an orange. Dr. M. performed Hunter's operation. Thirteen days after the operation, the ligature spontaneously separated itself from the artery. The tumor, which had been suddenly reduced in size after the application of the ligature, continued to diminish until it was no larger than a chesnut. The wound in the thigh healed. Three months after, the patient complained of feeling a pulsation in the tumor which corresponded with that of the arteries, but weak and deep-seated; the tumor did not increase in size. Dr. M., who was convinced that the femoral artery was perfectly obliterated, first employed a compressing bandage over the whole limb, to remove the pulsation, and to accelerate the disappearance of the tumor; but this treatment was unsuccessful. Attempts were then made to compress the tumor alone by means of a cushion bandage, but the patient could not bear it more than half an hour. Notwithstanding the short time it was applied, Dr. M. was not surprised to find the pulsation gone when he removed the bandage. The centre of the tumor no longer indicated the presence of fluid: it was hard and solid. From this time absorption of the coagulum rapidly took place, and the patient was perfectly cured.

The anatomical and pathological remarks which I have offered appear to me important from their practical utility, and the improvements they suggest in the practice recommended by Hunter for the cure of external aneurisms. I am persuaded that it has not unfrequently happened, where the *temporary* ligature has been applied to the brachial or femoral artery, that mistakes have arisen as to the true cause of the phenomena which I have just mentioned; and that, by confounding the pulsations which arise, at an uncertain period, after the removal of the ligature, from the presence of the collateral vessels, with those which depend upon the non-obliteration of the arterial trunk upon which the ligature has been placed, that a second ligature has been applied above the first, and that thus the patient has been unnecessarily subjected to another operation.

The principal object of the above paper is to point out the unimportance of certain symptoms which sometimes occur after the application of the *temporary* ligature, and which have not seldom been supposed to prove the inefficacy of such a mode of practice. We regret, however, that the celebrated author has not pointed out the advantages obtained in the cases he relates, by the use of the *temporary* instead of the *permanent* ligature. Has he not adverted to this point because he no longer thinks so highly of this mode of operating; or does he admit that the advantage of the *temporary* ligature is not well illustrated in the instances he relates? The details of the cases are not sufficient to enable us to judge of all the points of comparison between the two plans, but to one point we may refer, namely, the *time* required for the healing of the wound, and the period at which the patients were discharged from the hospital. In the first case, the ligature was removed from the femoral artery on the third day. In five weeks the wound was nearly healed; the patient left the hospital fifty-two days after the operation. In the second case, the ligature was removed from the brachial artery three days and a half after its application: fourteen days after this, it is reported that the pulsations in the tumor had entirely ceased, and it is added, "the wound now healed, and the patient left the hospital cured." In the third case, the ligature was taken from the femoral artery four days after it had been applied: on the tenth day the wound had nearly cicatrised; the patient quitted the hospital fifty-six days after the operation. In the fourth case, one of femoral aneurism, the cure was perfected in forty-three days. There was probably, then, little gained as to *time* in these cases by the use of the temporary ligature. Of its superior safety, and advantages in other respects, the facts are not yet sufficient to enable us to form an opinion. We refer our readers for a concise yet interesting account of the opinions and experiments of various surgeons relative to the use of the *temporary* ligature, to COOPER'S Surgical Dictionary, p. 131, sixth edition. Mr. Cooper is adverse to the practice: his mind "has long been made up about the inexpediency of the temporary ligature as an innovation in surgery."*

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* Mr. Guthrie, in his recent work on Diseases and Injuries of the Arteries has not stated his opinion respecting the use of the temporary ligature, but we know that he objects to its employment under any circumstances.—EDITOR.

ANEURISM OF THE AORTA.

Aneurism of the Arch of the Aorta, fatal from Rupture into the anterior Mediastinum. By ALEX. THOMSON, M.B.

ELIZA BLACKBURN, aged 28, well made, upwards of six feet in height, married, and the mother of five children, the last of whom was born about four years back. She was hasty and passionate, took powerful exercise, and danced often to excess, when in tolerable health. About four years ago she was afflicted with hysteria, which attacked her from time to time for the space of twelve months, and then left her. During these last four years, she has done little or no work, on account of constant and overpowering debility, brought on, or rather materially increased, even by slight exertion. From childhood she was very subject to colds, which always settled in the throat, and terminated in what is commonly called ulcerated sore throat. The last time she was affected in this manner was about four years ago, when the tonsils, being so swollen as to prevent deglutition, were punctured by her medical attendant, Mr. Low. From this period she has had no more similar attacks. She was never affected with cough until last autumn, when, after catching cold, she was seized with a loud, coarse, hollow cough, which continued for two or three months before she began to expectorate. From this period to that of her death, she continued to expectorate a viscid frothy matter, resembling the white of an egg, occasionally streaked with blood, whenever the cough was more than usually violent. Her cough did not come on in long paroxysms. She complained, as much as four years back, of pains in both shoulders, but more particularly in the left shoulderblade, which, together with debility, prevented her from working, as both were brought on by exertion. For twelve months before her death, she had very severe pains in the right arm, which were constant, but increased by a change in the weather; latterly this arm used to swell considerably.

During the winter before last, for the first time she was seized with a violent pain in the chest, at about the middle of the sternum, so violent as to prevent her lying down, and accompanied by intense pain of the right arm. She never was heard by her mother, her constant companion, to complain of beating or of a sense of burning in the chest. For this pain she was attended by Mr. COPE, of Cleveland street, who soon relieved her, and enabled her to go about her usual avocations. She felt no more of the pain in the chest until last Christmas, when it returned with increased violence, and, although materially relieved at that time by a large blister, continued almost unabated till her death. She also suffered from intense pain of the left side, in the region of the heart, and was never able to lie upon that side. She slept very heavily during the night, and almost invariably for two or three hours after dinner; was much troubled with horrible dreams, and frequently awakened with a start. For some nights previous to her death, she was exceedingly restless. She has never been able to lie down since last Christmas, but has been obliged to be supported with pillows nearly in a sitting posture. Her appetite was never very good, and her dinner invariably rendered her very uneasy, making her feel (to use her own expression,) "as though she was young with child." She was latterly very anxious and unhappy in her mind. Till last Christmas she was tolerably regular in her bowels, but since that period she has been almost invariably constipated. The stools have been indurated, scybalous, and dark coloured; the urine abundant, and passed with ease; the catamenial discharge regular in its recurrence at the end of three weeks, but always (at least in the opinion of the mother) too copious. It occurred a few days before her death, and was followed by material relief of her most painful symptoms. She had complained, since Christmas last, of a pain in the small of her back. About a fortnight since, the veins of the left side of her neck were enormously swollen, and remained so, producing considerable pain. She frequently felt very faint, particularly on the evening of the day previous to that on which she died, although in the morning she had been in very good spirits.

On the evening of her death, she had her feet bathed in hot water, by which she had often found her chest relieved, and was put to bed as usual at half-past ten, where, propped by pillows, she composed herself to sleep. At twelve P.M. she roused up the persons of the house, and asked them to send for the doctor. In less than half an hour from this period, she clasped her hands, and, without a sigh or a groan, leant upon her right side, and died.

I must not omit to observe, that she was never troubled with difficulty of breathing. I saw her but once previous to her death, and that was at her last visit to the dispensary, at which she had been treated for chronic bronchitis. No suspicion had been entertained of any affection of the aorta. Struck with her appearance, and an unusual pulsation between the sterno-clavicular ends of the sterno-mastoid muscles, and suspecting disease of the heart, I applied the stethoscope to her chest, over the upper part of the sternum, when I heard a sound as of water poured from a wide-mouthed bottle into a basin already containing water. I was, therefore, requested to call upon her, and examine her more carefully at my leisure; a request which I was prevented complying with, by hearing next morning but one of her death.

Morbid appearances. On opening the thorax, the margins of the lungs were remarkably healthy, although attached by recent adhesions to the mediastinum, which evidently contained a tumor separating its layers, and so closely adherent to the triangular bone of the sternum, as necessarily to be penetrated by an attempt to remove it by separating it from the periosteum. It is worthy of remark that the first incision into the superficial veins of the neck was followed by a jet, or rather continuous fountain of blood, which, although no part of the neck or body was higher than the part cut, rose from the orifice of the incision to the height of about half an inch, and continued to flow with rapidity for the space of two or three minutes. It was difficult to account for such a flow of blood from a body in which all the functions of life had been suspended for upwards of twenty-four hours, in which also the joints were rigid and the whole frame cold; and those present were so much struck as for a moment to suspend the examination. The neck had been purposely elevated by a block, in order to permit of an examination of the larynx and trachea, and therefore the lower part of the neck, in which the incision was made, was at that time higher than any other part of the body. Gravity, therefore, was not the agent by which the still fluid blood was put in motion; nor could atmospheric pressure exert any influence, inasmuch as, the vein being opened, the stream of blood was equally acted upon by the atmosphere as the coats of the vessels themselves. It is true, indeed, that all the veins of the neck, as had been remarked previously to the commencement of the examination, were remarkably swollen or distended; and it appears probable that this turgescence of the veins aided the elastic or resilient power of the coats of the veins, (for it appears that we must grant the existence of such a power, and from this observation, that it continues for some time, even twenty-four hours, after death,) in forming this fountain.

Both pleural sacs contained a small quantity of sanious serum, and the vessels of the costal and pulmonary pleuræ of both sides were considerably injected. There were, however, no adhesions besides those already mentioned, and no affection of the substance of the lungs, except venous congestion and a highly-injected state of the mucous membrane of the bronchial tubes. There were not, however, any ulcerations noticed in these tubes, nor any remarkable thickening of their parietes, nor any cavities or tubercles, or infiltration into the parenchyma of the lungs.

minished to about one half of its former size. The foot was warm, and but little sensible to the touch; the extremities of the toes were cold.

The tenth day, the wound had nearly cicatrised; the circulation was partly re-established in the lower part of the limb, which had recovered its natural warmth and sensibility. The leg could be bent upon the thigh without much difficulty.

Twentieth day.—State of the patient so satisfactory, that he was permitted to walk on crutches, the limb being bandaged.

Three days from the commencement of his taking exercise, feeble and deep-seated pulsations were felt in the tumor: perfect rest was consequently enjoined, and the tumor was covered with cold lotions. A most careful examination of the course of the femoral artery below the ligature was made, but not the slightest pulsation was detected. The dull and deep pulsation in the tumor continued for four days, but it did not increase in size. This pulsation insensibly diminished, and the patient rapidly recovered, and left the hospital perfectly cured fifty-six days after the operation.

Two years afterwards, the same person again appeared at the hospital, with popliteal aneurism of the left leg. The limb was much swollen, and therefore Professor Morigi deemed some delay prudent. After a few days' rest, the operation was performed, as it had been in the other extremity, with complete success. The cure was perfect in forty-three days. Three years have now elapsed, and the man enjoys good health.

It will have been observed, that in this patient the circulation, which was for a short time re-established in the sac by the anastomosing branches of the right femoral artery, was only manifested by weak and deep-seated pulsations in the sac, which occurred twenty-three days after the operation. It is evident that this phenomenon arose from the too early exercise in which the patient indulged. After the operation upon the left limb, no such symptom occurred, probably because the anastomosing branches were not so largely dilated on this side, and probably also because, during the whole course of the treatment, the patient remained perfectly quiet. It must, then, be from an unjust prejudice, or an absolute ignorance of the facts which are demonstrated by physiology and practical surgery, that the opinion is maintained that the treatment by the *temporary* ligature is more likely to be followed by a return of the disease, because pulsations may occur in the aneurismal sac some time after the removal of the ligature. It is also strange that this phenomenon should be attributed to the *temporary* ligature, inasmuch as it is just as likely to occur when the *permanent* ligature has been applied, after it has been spontaneously separated from the vessel, and discharged or removed from the wound. I could cite many examples of this fact, but the following will be sufficient: it was communicated by Dr. MONTHEUTH to Mr. WISHART, professor of surgery at Edinburgh.

A person had in the ham an aneurismal tumor, the size of an orange. Dr. M. performed Hunter's operation. Thirteen days after the operation, the ligature spontaneously separated itself from the artery. The tumor, which had been suddenly reduced in size after the application of the ligature, continued to diminish until it was no larger than a chesnut. The wound in the thigh healed. Three months after, the patient complained of feeling a pulsation in the tumor which corresponded with that of the arteries, but weak and deep-seated; the tumor did not increase in size. Dr. M., who was convinced that the femoral artery was perfectly obliterated, first employed a compressing bandage over the whole limb, to remove the pulsation, and to accelerate the disappearance of the tumor; but this treatment was unsuccessful. Attempts were then made to compress the tumor alone by means of a cushion bandage, but the patient could not bear it more than half an hour. Notwithstanding the short time it was applied, Dr. M. was not surprised to find the pulsation gone when he removed the bandage. The centre of the tumor no longer indicated the presence of fluid: it was hard and solid. From this time absorption of the coagulum rapidly took place, and the patient was perfectly cured.

The anatomical and pathological remarks which I have offered appear to me important from their practical utility, and the improvements they suggest in the practice recommended by Hunter for the cure of external aneurisms. I am persuaded that it has not unfrequently happened, where the *temporary* ligature has been applied to the brachial or femoral artery, that mistakes have arisen as to the true cause of the phenomena which I have just mentioned; and that, by confounding the pulsations which arise, at an uncertain period, after the removal of the ligature, from the presence of the collateral vessels, with those which depend upon the non-obliteration of the arterial trunk upon which the ligature has been placed, that a second ligature has been covered with inflamed and ecchymosed patches, on several of which small coagula had been formed and become attached. The lining membrane of the aorta itself, opposite to the dilatation, was considerably thickened, reddish, and elevated by semi-cartilaginous plates or depositions.

The trachea and *larger bronchial tubes* were considerably inflamed.

The pericardium contained about half a pint of glairy, rather turbid, pinkish fluid, of which some, when heated, coagulated, and the whole, when it had stood for half an hour, became cupped like blood under ordinary circumstances, separating into coagulum and serum; yet no blood had been effused into the pericardium, nor had the sac of the aneurism any connexion whatever with that of the pericardium. The internal surface of the pericardium was densely covered with vessels containing red blood, and elevated by numerous petechial spots along that tract, corresponding to the margin of the coagulum effused by the rupture of the aneurismal sac between the pericardium and the mediastinum. The cardial part of the pericardium had its vessels highly injected with red blood, and in some parts was spotted with stellular blushes of inflammation. The heart itself was smaller than natural, empty and contracted, loaded along the course of the coronary vessels with fat, softer than usual in its substance; and the parietes of both ventricles unusually injected with red blood. All the valves but those of the aorta, which had small semi-cartilaginous depositions along their attached margins, were healthy. The lining membrane of the ascending aorta was much thickened, unusually red, and elevated by numerous, irregularly-shaped, semi-cartilaginous plates.

Abdominal viscera, and the contents of the cranium, of healthy appearance.

Remarks. This case is interesting in several points of view. The aneurism crept on without giving any alarming indications to the patient, and, though completed by successive ruptures, still produced, till latterly, but slight inconvenience at the various periods of these accidents.

The first time she experienced pain in the thorax was about one and a half years before her death. It is more than probable that the laceration of the fibrous coat of the tumor took place about this time; for the pain at about the middle of the sternum was so intense as to prevent her lying down or obtaining rest. Yet she shortly recovered from this pain under the care of Mr. Cope, and, with the exception of debility, was tolerably well in health. A year elapsed before she again experienced inconvenience, which appears to have begun under the influence of mental agitation. From this time the unceasing pain in the region of the heart, accompanied by the same anguish at about the middle of the sternum, the dreamy and uncertain rest at night, disturbed by the startings, the inability to recline upon the left side, and to lie down flat at all, might, one would think upon reflection, have induced her medical attendants to refer the complaint to the heart. The debility itself, a sign, when unaccompanied by emaciation, as in this case, of disordered circulation, might have strengthened their suspicion, but they referred all these indications to angina pectoris, and they feared the stethoscope, because they knew not how to use it, and had never cared to investigate its powers. That she had bronchitis is true, from the evidence of the morbid examination, but that such bronchitis is the ordinary accompaniment of diseased heart or appendages, ought not to have been forgotten by the practitioner, had he carefully considered or investigated the previous history of the case.

These remarks are the more useful because, on this occasion, the physician who attended her in her last illness, derided publicly and before his pupils the use of the stethoscope on this very occasion; and, though one of the high priests of opposition to the introduction of this invaluable aid to practice, he did, upon viewing the dissection, and remembering the result of my last hurried examination of the chest, condescendingly admit that this tube might hereafter, but he feared at some distant period, be of use to the practitioner. His fearless denial of any other existing disease but bronchitis, was a striking warning to his pupils, and may well afford the same lesson to those who consider nothing good, but what themselves have learned to value in the early periods of their career.

It is curious that the blood of the aneurism remained quite fluid until drawn from the body twenty-four hours after death, when it suddenly coagulated; and this fact is the more remarkable from its being arterial blood which had remained in contact so long with ragged cellular tissue. If death of the blood causes its coagulation, in what state was this blood during the twenty-four hours? If arterial blood coagulate immediately upon coming in contact with cellular tissue, why did it in this case not coagulate under the favorable circumstances in which it was placed in the aneurismal sac.

The preparation of the sac of the tumor may be seen in the museum of the University of London.

GUNSHOT WOUND.

Case of Gunshot Wound, with Remarks. By J. W. Heustis, M.D. of Cahawba, Alabama.*

On the 16th of January, 1824, L. Roberts, of this place, was shot by the discharge of a small cannon, on board one of the steamboats, used as a signal for arrival and departure. He was standing with others on the bank of the river, and the piece being pointed incautiously to the shore, wounded by its discharge the subject of this article in the back. It was supposed that the wadding of the gun was made of some old clothes having buttons on them, from the circumstance and appearance of the wound, which was on the right of the spine, just below the crest of the ileum, about the size of a quarter of a dollar. Upon examination, it appeared that the intestinal canal was broken, as the contents of the bowels were discharged freely at the wound. The place was dressed, and quietude and a recumbent posture were enjoined. Having a patient some miles distant, I did not see Roberts again until the next day. On my return, I was told that a consultation of physicians had been held upon his case, which was considered desperate, and that, with the approbation of the patient, they had come to the conclusion of opening the abdomen, searching for, taking up, and sewing together the wounded portion of intestine. The physicians who held this consultation were gentlemen highly respected in their profession and by society at large. As they made known to me the result of their deliberations, I begged leave to differ from them in opinion, as the practice proposed was unauthorised by example, and at variance with the advice of the best surgical writers on the subject. Had the injured extremities or portion of intestine protruded from the wound, there could then have been no objection to uniting by suture the lacerated bowel, having previously pared off the jagged and deadened circumference, and then securing it to the external orifice. But here we should have been operating completely in the dark; a considerable thickness of adipose and muscular substances would have been required to be cut through before the intestine could be arrived at; besides, the bowels might have been wounded in more places than one, and the situation of these wounds was therefore a matter of uncertainty? The search might have been tedious and unsuccessful; or if successful, and the injured part had been properly united and secured, was there not reason to apprehend that such an extensive wound, the exposure of the abdominal cavity, and rough handling, would bring on dangerous or fatal inflammation of the peritoneum and intestines? I gave it as my opinion, that, however small it might be, the patient's only chance consisted in avoiding an operation so dangerous and uncertain, and, with proper medical treatment and external dressings, leaving the event to the curative operation of nature; to that *vis medicatrix,* so surprisingly presiding over human health and existence, from the first quickening of animal life to its final extinction. My advice was taken. The patient was laid upon a mattress, on his back, partially inclined to the injured side; and as the contents of the bowels escaped by the wound, a corresponding hole was cut through the bedding, and as much cleanliness preserved as the nature of the case would admit. He was now regularly attended and dressed by Mr. HOGAN, a student of Dr. CASEY's, and myself, every day. No alarming general symptoms ensued; though for nearly three weeks substances taken by the mouth and enemata were discharged in greater or less quantity by the wound. At length the residuary mass began to resume its natural channel, the external wound gradually healed and contracted, and a portion of the crest of the ileum, of the size of the finger presented and was contracted from the external opening. Finally, the wound in the course of four or five months healed up entirely, and the man has since enjoyed very sound and comfortable health.

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* American Journal of Med. Sciences.

It is scarcely necessary to say, that in the treatment of this case nothing but gentle laxatives, enemata, and the mildest articles of diet, as soup and gruel, were allowed. The patient was an old soldier, a man of much firmness and resolution, and upon whom calamity, or the prospect of death, appeared to make little or no impression.

Against the practice of opening the patient and searching for the wounded intestine, Mr. JOHN BELL makes the following judicious observations. "When there is a wounded intestine, which we are warned of only by the passing of the feces, we must not pretend to search for it, nor put in our finger, nor expect to sew it to the wound, but we may trust that the universal pressure which prevents the great effusion of blood and collects the blood in one place, that very pressure which always causes the wounded bowel and no other to protrude, will make the wounds, the outward wound and the inward wound of the intestine, oppose each other, point to point, and if all be kept there quiet, though but for one day, so lively is the tendency to inflame, that the adhesion will be begun which is to save the patient's life."

A case similar to the one above is given in the New York Medical Journal for Dec. 1828, p. 574, from the Memoirs of the American Academy of Arts and Sciences; and similar instances are recorded by a variety of authors.

It might be supposed that wounds penetrating the intestines through the parietes of the abdomen, would prove generally and necessarily fatal, yet even against this nature has in a great measure guarded, by leaving no vacuum or unoccupied space within the general peritoneal cavity, and by the uniform and equable pressure and support which the diaphragm, the abdominal parietes, and the contained viscera afford each other. When the stomach and bowels are in a state of repletion, they are applied in close contact to the peritoneal envelope, and, when the former are empty, this contact and adaptation are preserved by the contraction and elasticity of the latter: besides each convolution and portion of the intestinal canal has its appropriate location, so that, in case of injury, the external wound corresponds with the internal.

Another way in which nature consults her own safety and preservation, is by the process of adhesive inflammation. One of the chief and the essential means of reunion, in cases of solution of continuity in the animal body, is the deposition of lymph, which becoming organized by the formation of new vessels and nerves, unites and envelopes contiguous surfaces and parts; so that in case the wounded portion of intestine, by rest and position, can preserve its natural adaptation to the external opening for a few hours, the danger and possibility of displacement is effectually guarded against and prevented. "Soldiers," says Mr. John Bell, "recover daily from the most desperate wounds; and the most likely reasons that we can assign for it, are the fulness of the abdomen, the universal, equable, and gentle pressure, and the active disposition of the peritoneum, ready to inflame with the slightest touch. The wounded intestine is, by the universal pressure, kept close to the external wound, and the peritoneum and intestine are equally inclined to adhere. In a few hours that adhesion is begun which is to save the patient's life, and the lips of the wounded intestine are glued to the lips of the external wound. Thus is the side of the intestine united to the inner surface of the abdomen, and though the gut casts out its feces while the wound is open, though it often casts them out more freely while the first inflammation lasts, yet the feces resume their regular course whenever the wound is disposed to close."

Although nature thus guards against the effusion of the contents of the bowels into the cavity of the abdomen, yet we can readily suppose that this may sometimes be prevented by the severity and extent of the wound, dividing the intestines to such a degree, or in such a situation as to cause their contents to be immediately discharged within the general cavity: this will be the more liable to happen should the alimentary canal be in a state of repletion and distention. Numerous cases are recorded by surgical writers, in which persons have been stabbed and shot through the body without fatal consequences, and sometimes without being followed by any serious or alarming symptoms. It is very probable that, in some instances of this nature, the slippery and mobile convolutions of the bowels may elude the ball or the point of the weapon, yet in many, and perhaps the majority of cases, there can be little doubt that the intestines have been wounded to a greater or less extent, and that the discharge of matter from them into the general cavity of the abdomen is prevented by that uniform and equable pressure and support afforded by the juxtaposition and adaptation of contiguous and surrounding parts, and, as already stated, the adhesive inflammation which speedily takes place, prevents all danger of effusion after the lapse of a few hours.

I am aware that in these observations I have little claim to originality, yet, as a bare detail and history of isolated cases without suitable remarks and explanations, is comparatively uninstructive, the above considerations, I trust, will not be thought inappropriate.

HOSPITAL REPORTS.

MIDDLESEX HOSPITAL.

Removal of a large fatty Tumor.

Henry Hoare, æt. sixty, was admitted into the hospital on the 19th of June, under the care of Mr. Mayo. His complaint was a large tumor, attached to and covering the right hip: it had been growing thirty years, and, except through its weight, had given no inconvenience till recently, when part of the surface had inflamed and ulcerated. The tumor was easily moveable upon the crest of the ilium and the glutei muscles, on which it rested. It presented the soft elastic lobulated character of a fatty tumor, which, upon examination, it proved to be.

The tumor was removed by Mr. Mayo on the 14th of June: it weighed thirteen pounds two ounces. Enough of the integument had been dissected from the tumor to allow the edges of the skin to be brought together and held in contact with sutures, and strips of adhesive plaster. The wound went on favorably: the greater part of the skin united to the muscle below by adhesion; the patient had entirely recovered in five weeks, a long and narrow cicatrix upon the hip alone remaining. About sixteen ounces of blood were lost in the operation, which occupied scarcely more than half a minute, and about a dozen small arteries required to be tied. Two or three remarkably large venous trunks round the base of the tumor were divided in the incision through the integuments, but, after the first gush of blood, no more flowed from them.

Operation of Lithotomy, to remove part of a Catheter from the Bladder.

John Mitchell, ætat. thirty, was admitted into this hospital, under the care of Mr. Mayo, on the 20th of April. Three weeks before this, being under treatment for stricture, a surgeon, who attended him, passed a small elastic catheter into the bladder, which broke, leaving five inches behind. Between the period of this accident and his admission, the urethra had been dilated by the passage of instruments, and various attempts had been made, by means of bladder forceps, to extract the broken catheter.

At the period of his admission, this patient suffered only, when in voiding his urine, the bladder became nearly empty: the expulsion of the last drops of urine was attended with pain in the bladder, which lasted several minutes. The urine, however, was perfectly clear, and there was no call to pass it oftener than usual.

Upon examining the bladder with a sound, neither Mr. Mayo nor his colleagues could detect the presence of the broken catheter. Mr. Mayo, however, believing, from the history and symptoms of the case, that the foreign body must still be there, made several attempts with various instruments to seize it, and draw it through the urethra: these attempts were entirely fruitless, and brought on a slight degree of fever; they were therefore discontinued. With the use of opiates, the warm bath, and alkaline drinks, the patient's condition speedily improved. The feverish symptoms left him, the pain on voiding the urine lessened, and sometimes for a day he was wholly free from it.

After a time, however, the symptoms became aggravated; the pain in the bladder on passing the urine was increased; pain of the same description was felt upon evacuating the bowels; the urine became turbid, and there adhered to the bottom of the vessel a viscid puriform mucus. The patient now passed fragments of calcareous matter, to which small portions of the crust of the catheter adhered. Under these circumstances, Mr. Mayo examined the bladder anew with the sound, determining to make fresh attempts, if any thing should be felt in the bladder, to extract it through the urethra. But the lining membrane of the bladder was now acutely sensible, and the presence of the sound could scarcely be borne by the patient. Portions of calcareous matter were, however, distinctly felt in the bladder; and the patient expressed a strong wish to be cut, rather than to suffer renewed attempts at extraction by the urethra.

Accordingly, on the 12th of July, the lateral operation was performed by Mr. Mayo. The bladder being cut into, the broken catheter was taken out in two portions, each having a thick calcareous concretion upon it. This concretion was of a brittle nature and some difficulty was experienced in clearing the bladder of the fragments that were detached; the bladder was washed out with warm water, but still some fragments remained. The patient, who appeared to suffer considerable pain from the process, was then returned to bed, and forty drops of laudanum were administered to him. Three hours afterwards, some urine having flowed away, not containing calcareous matter, Mr. Mayo again introduced the tube of a syringe into the bladder, and injected warm water. A slight attack of shivering followed, which recurred early the following morning; but the bowels being freely moved in the course of the day, the patient felt relieved. His subsequent progress has been perfectly favorable, and several fragments of calcareous matter, probably all that remained, have flowed away in the urine.

Mr. Mayo employed a double-edged scalpel and Blizard's knife, and remarked, in reference to the operation of lithotomy, and to the instruments used in it: 1st, that the outward wound should be very oblique, by which means its direction is brought to the nearest correspondence with that of the incision in the bladder, and the rectum is placed in the least danger of being wounded; 2d, that the groove in the staff should be opened towards the left side, by making the left edge of the groove considerably shallower than the right; 3d, that the curve of the staff should be sudden, and that the part beyond the curve should be of sufficient length, and nearly straight, not bent upwards at the point; 4, that the groove in the staff should terminate abruptly, and a full third of an inch from the end of the staff; 5, that the scalpel employed to cut into the urethra and bladder should have a double edge, in order that it may be the easier run into the groove of the staff; and thatthe upper surface of the scalpel itself is all the better for having an oblique, shallow groove, corresponding with the left edge of the groove of the staff; 6, that the Blizard's knife, which Mr. Mayo recommends, if the operator does not employ the scalpel to complete the incision, should have a short cutting edge, and should end in a large square beak, calculated to strike full against, and to be securely checked by the deep, square, and abrupt termination of the groove of the staff, the beak being set upon the blade just so obliquely as to give the edge the requisite direction downward and outwards; for moving in which direction, the Blizard's knife, it may be observed, is already disengaged from the staff, by the joint effect of the obliquity of the beak and of the shallowness of the left edge of the groove of the staff. A skilful hand will no doubt execute this operation well with any instrument, but it must be desirable to adapt instruments as exactly as possible to the objects upon which they are to be employed.

The subject of this case bore the operation with much less than ordinary fortitude; and it is but an act of justice to Mr. Mayo to express our admiration of his perfect self-possession and operative dexterity with so unruly a patient.

EDINBURGH SURGICAL HOSPITAL.

Fungous Tumor of Mamma.[*]

Jean Hey, æt. thirty-seven, admitted 19th February, on account of a large fungous tumor growing from the upper part of the mamma, not involving the nipple or skin below it, and not seeming to adhere to the subjacent parts. It is of an irregular shape, of a dark-red colour, of a soft consistence, and bleeds freely when touched; the discharge from it is thin, dark coloured, fœtid, and very copious. The patient is extremely emaciated, her countenance is anxious, and her complexion of a remarkable unhealthy-looking yellow hue. She has little appetite, and what food she does take is generally rejected by the stomach. She has frequent fits of sickness, which she ascribes to the smell from her breast; she complains much of pain, and passes restless nights. Pulse quick and weak.

Last May she had an infant seven months old at the breast, and was much confined to the house. She caught cold one day from going out, and was attacked with erysipelas in the face, which went off the following morning. She continued to be sick and squeamish occasionally for six weeks, her appetite being bad, and her thirst great, when she felt a small hard lump just under the nipple of her left breast. It increased in size, the child still continuing to suck, and formed a large elastic swelling, discoloured on the surface, and very painful. After poulticing it for some time, she applied to a surgeon, who made an incision, and evacuated twenty ounces of a dark-coloured fœtid fluid, and on two other occasions, within the following ten days, discharged two teacupsful of the same sort of matter. Poultices were again applied, but the pain and discharge continued, and an abscess formed, which being opened in January last, was found to contain six ounces of thick fœtid pus. The opening did not close, but the skin, as she described it, began to fall off in small pieces round the wound, while fungous masses at the same time protruded.

23d. Mr. Syme being willing to afford the patient the only chance she had of recovery, proceeded to excise her breast. He included the tumor along with the nipple, within two semilunar incisions; it adhered slightly to the pectoral muscle, and, after dissecting it off, he discovered a small round tumor lying under the muscle, which he likewise removed. The edges of the wound were brought together with some difficulty, owing to the large quantity of skin removed, and retained by means of stitches. She was ordered beef-tea and wine in small and repeated doses. The diseased part being cut through after the operation, exhibited a very characteristic specimen of medullary sarcoma.

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[*] From Mr. Syme's Quarterly Report. Edinb. Med. and Surg. Journal.

24th.—Has passed a very restless night, having had profuse diarrhœa. She was ordered half-grain opium pills, to be taken according to circumstances; the stitches to be supported by broad pieces of plaster; beef-tea and wine continued.

25th.—The diarrhœa ceased after the first pill. She is looking a good deal better; sickness less; pulse stronger; countenance not so anxious.

March 2d.—She is improving rapidly. Her appetite is now pretty good; pulse stronger; wound looking healthy. To have porter.

15th.—Wound almost completely healed; desires to go home to attend to her family.

I have given this case at full length from the journals of the Hospital, both because the history of it is rather unusual, and because it shows the possibility of complete temporary recovery by operation from apparently the most hopeless cases of this disease. When I was asked to see this poor women, she was in the most wretched state it is possible to conceive; the air of the room was poisoned with the stench that proceeded from a discharge so copious as to drench her clothes and the bed on which she lay; her stomach rejected food; and her pulse could hardly be felt. The second time I visited her, I found her busy in the performance of domestic duties, strong and active, while the breast was perfectly healed; and apparently free from any disposition to give her further trouble.* It has long seemed to me that we are in the custom of comprehending under the title of medullary sarcoma, many morbid growths of very different morbid tendency. Some of these tumors never fungate, though allowed to attain a great size; many of them fungate, but never bleed; others manifest the most remarkable hemorrhagic disposition; and there is the greatest variety with respect to their recurrence after removal. Such being the case, it would seem to be our duty, so long as we have not ascertained the distinctive characters, if there be any, of those of a malignant nature, to afford the patient a chance, by performing the operation whenever the whole existing disease can be taken away.

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* Since this was written, I have learned that her health is again breaking up.

CRITICAL ANALYSES.

Quæ laudanda forent, et quæ culpanda, vicissim
Illa, prius, cretâ; mox hæc, carbone, notamus.—Persius.

The unnoticed Theories of Servetus. By Geo. Sigmond, M.D. F.L.S. 2d Edition.—8vo. pp. 135. London, 1828.

Dr. Sigmond is so fortunate as to possess a copy of the "Christianismi Restitutio" of Servetus, bequeathed to him by the late Dr. Sims, who prefixed the following note to it.

"The fate of this work has been not a little singular: all the copies, except one, were burned along with the author, by the implacable Calvin. This copy was secreted, and saved by D. Colladon, one of the judges. After passing through the library of the landgrave of Hesse Cassel, it came into the hands of Dr. Mead, who endeavoured to give a quarto edition of it; but, before it was nearly completed, it was seized by John Kent, messenger of the press, and William Squire, messenger in ordinary, on the 27th of May, 1723, at the instance of Dr. Gibson, bishop of London, and burnt, a very few copies excepted. The late Duke de Valliere gave near 400 guineas for this copy, and at his sale it brought 3810 livres. It contains the first account of the circulation of the blood, above seventy years before the immortal Harvey published his discovery."

On this Dr. Sigmond says, oddly enough,

"In justice to the memory of my late valued friend, I must state my conviction that this copy is not the original one: at the same time, I firmly believe he imagined it to be that which he has described."

The progress of toleration, though slow, is sure: three centuries ago the same flames devoured the author and his work; in 1723 the book was burnt, but Dr. Mead was spared; and in the present age the whole of Servetus might be republished, without fear of bishop or reviewer: we are, therefore, something discontented with Dr. Sigmond for giving us only forty pages of the unitarian physician, and filling up the rest of his book with heaps of introductory matter, and an inaugural dissertation on the Bath waters, which is smuggled in at the end, without being *declared* on the titlepage.

The first extract from Servetus is a prayer, p. 46-48.

The second extract, from p. 54 to 78, contains an account of the three spirits which are in the body. The first is the blood, whose seat is in the liver and the veins. The second is the vital spirit, whose seat is in the heart and arteries. The third is the animal spirit, resembling a ray of light, whose seat is in the brain and nerves. Life begins in the heart, which takes its materials from the liver, but in return bestows life upon it. Life is composed of the blood from the liver, by a wonderful process, to be explained presently, and therefore life is said to be in the blood by God himself; Gen. ix. Levit. xvii. and Deut. xii. Now, the vital spirit is formed from the air which is inspired, and the finest part of the blood. The vital spirit takes its origin from the left ventricle of the heart, the lungs bearing a great part in its production. It is a thin spirit, formed by the force of heat, of a scarlet colour, and fiery power, being a kind of bright vapour from the purest blood, and containing in itself the substance of water, air, and fire. It is generated by the mixture which takes place in the lungs, of the inspired air with the refined blood sent from the right to the left ventricle. But this transmission does not take place through the septum cordis, as is vulgarly supposed, but the refined blood is very artificially drawn from the right ventricle by a long passage through the lungs: it is prepared and made scarlet* by the lungs, and it is transmitted from the pulmonary artery into the pulmonary vein. It is then, in the pulmonary vein, mixed with the inspired air, and is cleansed from its soot by expiration.

That this communication and preparation takes place by means of the lungs, we learn from the communication and joining of the pulmonary artery and vein in the lungs. This is confirmed also by the great size of the pulmonary artery, which would not be so large, nor convey so much blood to the lungs, solely for their nourishment; particularly as the lungs of the fœtus derive their nourishment from another source, the valves of the heart not being open till birth, as we are taught by Galen. Nor is simple air sent from the lungs to the heart, but air mixt with blood, through the pulmonary vein: therefore the mixture takes place in the lungs. The spirituous blood derives its scarlet colour from the lungs, and not from the heart. There is not sufficient room for so great a mixture in the left ventricle, nor for the elaboration necessary to form the scarlet colour. Lastly, the septum cordis, being deficient in vessels and power, would be unfit for this communication and elaboration, though something may drain through it. By the same artifice by which there is a transfusion in the liver from the vena porta to the vena cava, on account of the blood, there is also a transfusion in the lungs from the pulmonary artery to the pulmonary vein, on account of the spirit.

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* We translate flavus *scarlet*, as Servetus could not have mistaken the colour of arterial blood, though he might the meaning of *flavus*.

Such were the discoveries of the great Servetus, and so nearly had he fixed upon his own head the never-fading wreath that crowns the brows of Harvey!

"He then commences," says Dr. Sigmond, "that most extraordinary passage upon the seat of the mind. The blood, he supposes, having received, in its passage through the lungs, the breath of life, is sent by the left ventricle into the arteries; the purest part ascends to the base of the brain, where it is more refined, especially in the retiform plexus. It is still more perfected in the small vessels, the capillary arteries, and the choroid plexus, which penetrate every part of the brain, enter into the ventricles, and closely surround the origin of the nerves. From the vital spirit it is now changed into the animal spirit, and acts upon the mass of brain, which is incapable of reasoning without this stimulus. In the two ventricles of the brain is placed the power of receiving impressions from external objects; in the third, is that of reasoning upon them; in the fourth, is that of remembering them. From the communication through the foramina of the ethmoid bone, the two ventricles receive a portion of external air to refresh the spirit, and to give new animation to the soul. If these ventricles are oppressed by the introduction of noxious vapour, epilepsy is produced; if a fluid presses on the choroid plexus, apoplexy; and whatever affects this part of the brain causes loss of mental power." (P. 14, 15.)

The next extract, from p. 79 to 86, treats of animal and vegetable life. Servetus is of opinion that the soul is breathed into the fœtus at the moment of birth, and that the fœtus, breaking its membranes before it actually lives, is to be compared to a chicken breaking its shell, or to those plants which tear asunder walls and rocks by their growth.

The last extract, from page 86 to 90, which is taken from the book De Fide et Justitiâ, treats of the partition of the mental faculties between the heart and brain. Faith and the will reside in the former, the power of reasoning in the latter.

Before we take leave of Dr. Sigmond, we must observe that there are more blunders of the press, or the pen, in this little work, than we should have expected, and it is not always easy to know to which to attribute them. The last sentence in Servetus's prayer (page 48) is turned into nonsense, by *foco* usurping the place of *fuco*. In the next page the Doctor quotes the well-known verse of Lucretius,

Tantum religio potuit suadere malorum,

so as to make it a verse no longer,

> " Tanta potuit religio suadere malorum."

These mistakes, however, together with some others, are easy to correct; but the following passage has altogether baffled our critical sagacity, "Illo die ducebatur illum impia nos rationis inire elementa." P. 46.

Nor would we undertake to find the following morsel of Greek in Athenæus, to whom our author attributes it at page 104, Εσθλον *αλεξ ικανον πασῃ ανιῃ*. Perhaps it should be Εσθλον *αλεξικακον πασῃ ανιῃ*.

In conclusion, we thank Dr. Sigmond for presenting us with a considerable portion of Servetus in an accessible shape, and hope that, in his third edition, he will give us larger extracts, and leave the Bath waters to the Bath Guide.

An Outline of the first Principles of Botany. By John Lindley, F.R.S. L.S. and G.S. &c. Professor of Botany in the University of London.—Pp. 106. Longman and Co. 1830.

A Synopsis of the British Flora, arranged according to the natural Orders: containing Vasculares, or flowering Plants. By John Lindley, F.R.S. L.S. and G.S., Member of the Imperial Academy Naturæ Curiosorum of Bonn; of the Botanical Society of Ratisbon, and of the Physiographical Society of Lund; corresponding Member of the Linnæan Society of Paris; assistant Secretary of the Horticultural Society; and Professor of Botany in the University of London.—Pp. 360. Longman, 1829.

A Natural Arrangement of British Plants, according to their relations to each other, as pointed out by Jussieu, De Candolle, Brown, &c., including those cultivated for use: with an Introduction to Botany, in which the Terms newly introduced are explained; illustrated by Figures. By Samuel Frederick Gray, Lecturer on Botany, the Materia Medica, and Pharmaceutic Chemistry.—Two vols. pp. 824 and 760; twenty-one Plates. Baldwin and Co. 1821.

The works of Gray and Lindley, though published at such distant dates, are very similar, both in their objects and contents. They are, as their titles predicate, introductions to, and synopses of, the so called natural method of botanical arrangement, which has long emulated, and now attempts to supersede, the Linnæan system. From them we may consequently learn the progress which the cause they advocate has made during the last ten years. The later published, of course, contain allusions to the more modern discoveries in botany; but the former, notwithstanding its manifold defects, still remains the most complete introduction to the natural system that has yet appeared in the English language; for it not only includes the British Cryptogamic as well as the Phænogamic Flora, but also comprises many of the plants most commonly cultivated here, whether in the garden, the forest, or the field. The great objection to the work of Gray, and the cause of its very general neglect, is the unhappy passion therein evinced for changing the names of plants, and which is too often indulged for no other reason than the love of change. This is a privilege granted with jealousy, and granted but to few: it is a power that should be used with the utmost caution, and is wisely watched with the extremest care.

The first volume of Gray's work contains a copious introduction of nearly three hundred pages, explanatory of modern discoveries and modern nomenclature, designed to answer the same purpose as Lindley's shorter "Outline of the First Principles of Botany;" to which it is in some respects superior, although in others far less to be relied on. The remainder of the first volume is dedicated to the systematic arrangement of the supposed truly cellular plants, i. e. the Cryptogamic vegetables of Linnæus, excluding the ferns; and these are designed by Lindley to form the subject of the second volume of his Synopsis, as yet unpublished. Gray's second volume contains, besides the ferns, the whole of the native and the most commonly cultivated plants of Britain: a shorter view of the indigenous part of which will be found in Lindley's published volume.

We propose to show from these, two of the most strenuous advocates of the *natural* scheme, the insufficiency of its principles as a diagnosis, and the great inferiority of its artificial helpmates to the Linnæan clavis; and we shall direct our attention the more particularly to the Synopsis of Lindley, not only because he appears the most sanguine proselyte, but also because, being the latest, his work may be presumed to contain the most approved, the most perfect application of the system. A slight view, however, in the first place, must be taken of his "Outlines."

The sententious form in which this volume has been written, will in a great measure preclude remark. It chiefly consists of a series of enunciations, which we presume are fully descanted on by the Professor in his lectures; and, although far too succinct to convey much information to the uninitiated, it is a kind of classbook of which we highly approve, as it is well fitted to recal facts which might otherwise be easily forgotten, and cannot fail to assist students in the, at first very difficult, task of connecting an extended series of facts, and properly arranging the knowledge they have gained.

Many of the doctrines are, however, advanced far too dogmatically, and some things stated as absolute facts which should rather have been ventured as doubtful hypotheses: e.g. in par. 25, it is said of the spiral vessels, "they are not found in any part which is formed in a downward direction, and are consequently absent from the wood, bark, and root." Whereas Sprengel writes, "they are found also in the root, as well as in the stalk. Richard observes, "they are found sometimes in the root," and adds, "Messrs. Link and Treviranus have discovered these vessels in the roots of several plants;" and "still more recently M. Amici has unfolded spirals in the roots of many plants, and, among others, of the Agapanthus umbellatus, and of the Crinum erubescens."

Again, par. 27, "they only exist in plants propagated by the agency of sexes." Whereas Sprengel says, "We find an instance of this form (the primitive spiral,) in some Confervæ, in some of the Musci hepatici, and especially in the cellular texture which covers the surface of the Sphagnum obtusifolium." Keiser likewise supposes the spiral to be the original of all the other varieties of vegetable vessels, which he asserts are merely changes of the spiral; and this opinion (writes a contemporary of no mean credit) receives considerable support from the fact that spiral vessels are found in all young plants, and that they are the only kind observed in some of the *inferior* tribes of vegetables." We do not presume to say that Lindley is wrong, for we have never seen spiral vessels in the Conferva or Musci, yet, when such authorities vouch for their existence, we should have been better pleased to have found the negative more modestly asserted; and, as it has been elsewhere, a "*supposed*" might here have been very advantageously introduced.

Par. 30. Fausses trachées: "sometimes they have the appearance of spiral vessels, from which they are known by not being capable of unrolling." It should rather have been, by their *greater difficulty* of unrolling; for they may be, and have been, by care, frequently unrolled.

Par. 34. "The mode in which the different forms of tissue are developed, is unknown." True: the mode of developement is not certainly known, but the observations are at least as conclusive on this point, and the hypothesis at least as reasonable, as that so positively stated with regard to the spiral vessels.

Par. 42. "The mass of cellular tissue lying *beneath the* CUTICLE of the bark is called the EPIDERMIS:" very improperly, and we believe very seldom, and by very few; for the cuticle is the *epidermis*, and the layer of cellular matter beneath the cuticle is called the *cellular integument*, the stratum cellulosum, or the medulla corticalis. Again, in par. 105, this error is repeated, and the names of two very distinct and different structures used as synonymes to designate the same: thus, "the exterior cellular tissue constitutes the *cellular integument* OR *epidermis*."

Par. 64. Of the root we read, that "anatomically it differs from the stem in the absence of *spiral vessels*, of *pith*, and of buds, and in the want of stomata." The first of these peculiarities we have already shown to be at least apocryphal, and the second must be confessed to be a controverted point, since Richard writes "this difference appears to us of little importance, and even in direct opposition to facts. In truth, we have found, in a great number of vegetables, that the medullary canal of the stem is continued, without any interruption, into the body of the root. If, for example, the trunk and root of a horse-chesnut, of two years old, be slit longitudinally, the medullary canal of the stem will be seen *to extend to the lowest part of the root*. It is the same if we examine a young plant of sycamore or maple. But very often this canal, which was very manifest in the plant shortly after its germination, *at last diminishes*, and *even gradually disappears*, in the progress of vegetation, so that it is no longer found in those adult plants which contained it when young. From this it follows that the absence of medullary canal in the root *cannot* be reckoned a distinctive anatomical character between it and the stem, because it almost invariably exists in the germinating radicle of the seed, and often in the root of a great number of vegetables, long after this first period of their life."

Par. 82, 83. "The pith: it *never* alters in diameter after it is once formed." This again is "land debateable:" we strongly suspect that it lessens gradually in diameter, and in old stems and branches becomes entirely obliterated; and, notwithstanding Du Petit Thouar's assertion, we have specimens which we think prove this gradual diminution of the medullary canal. This opinion receives confirmation from the extract just made from Clinton's Richard.

Par. 103 and 104, the phrase "woody fibre" should be changed for "bark fibre," as it is likely to lead to confusion of ideas when we read that "the *woody* fibre and ducts constitute the *liber.*"

Par. 138 and 139. "Whatever is produced by the evolution of a leaf-bud is a branch." "A spine (i. e. a thorn,) is the imperfect evolution of a leaf-bud, and is therefore a branch." Notwithstanding the force of this syllogism, we must still contend that a spine is not a branch. Leaf-buds often evolve nothing but leaves, as in the firs and their allies: leaf-buds often evolve tendrils only, and tendrils and leaves conjointly are often produced by the evolution of a leaf-bud, but neither leaves nor tendrils are *branches:* a branch is the elongated axis of a leaf-bud, combined with its appendages, but the axis often becomes abortive, and the appendages only are evolved; yet the appendages alone do not constitute the branch, any more than the imperfect evolution of the abortive axis. But we suppose that it is to the partial, rather than to the imperfect, evolution of a leaf-bud that reference here is made; in which the developement becomes suddenly arrested, so that a short branch is produced terminating in a spine or thorn: but the branch which bears the thorn, (often several thorns,) is not itself the thorn, any more than a root which bears a bulb is a bulbous root. Contrast, for instance, the spines of the cockspur-thorn with the thorn-bearing branches of the hawthorn. Hence, it should rather have been said, "A spine is the imperfect evolution of a leaf-bud, and *therefore* it is NOT a branch." This needless paradox reminds us of the schoolboy's sophism, "No cat has two tails; a cat has one tail more than no cat: ergo, a cat has three tails;" or, to use more parallel terms, "Whatever time results from the revolution of the earth round the sun is a year; a week is an imperfect or partial revolution of the earth round the sun; therefore, a week is a year."

Par. 299. Whatever intervenes between the bracteæ and the stamens belongs to the floral envelopes, and is either calyx or corolla; of which nature are many of the organs VULGARLY called *nectaries.*" This is a gratuitous assumption, apparently introduced for the purpose of excluding a very convenient Linnæan term. It is a fact well known to all that the various forms of appendage found on the vegetable frame, such as scale, leaf, bracte, sepal, petal, stamen, pistil, seed-vessel, &c., are all but stages of developement of the same rudimentary organizations, and that, as circumstances favor, either the one or the other may be predominantly evolved. But as each becomes successively and variously unfolded, it has been found convenient to give to each form or stage of metamorphosis an appropriate and peculiar name; and, if *calyx* be allowed to designate one form, and *corolla* another, *nectary* may surely be permitted to denote a different (often an intermediate) series of evolutions; and, although a far too great latitude has been occasionally indulged in, the transitional developements are more conveniently associated and indicated thus, than by calling them abortive organs of various kinds, when it is very doubtful what organs they are abortions of, or if, in truth, many of them are abortions at all.

The definitions of the several modes of inflorescence are exceedingly unsatisfactory, in some instances, we think, incorrect; or, at any rate, to us unintelligible. E. g. par. 265 and 267 declare that "a *panicle* is a raceme, the flower buds of which have, in elongating, developed other flower buds." "A panicle, the elongation of all the ramifications of which is arrested, so that it assumes the appearance of an umbel, is called a *cyme.*" Now, the essence of a pannicle is, that the partial peduncles should arise from different points of the common peduncle, as do the pedicles of a raceme, and as do the sessile or subsessile flowers of a spike; but the essence of a cyme is, that the first divisions all spring from the *same* point, and that the subdivisions only be irregular. Now, if a pannicle which is defined as being a *raceme,* the flower buds of which, in elongating, develope other flower buds, have this "*elongation arrested,*" it will not become a cyme, but return to the state of a raceme, or rather of a spike; and, if by *all* the ramifications be meant the general peduncle as well as the partial ones, by such an arrest of their elongation, the panicle would not only assume the appearance of, but in fact would be, an umbel; if not a capitulum, or head. We use these terms in their improved but ordinary acceptations, without reference to the theory of Rœper, which, however ingenious it may be, our author, as well as ourselves, may be excused for not immediately, and in all its parts, adopting.

P. 347. "The style is frequently absent, and is no more essential to a pistillum than a petiole to a leaf, or a filament to an anther." True; but this sentence would appear to involve a false principle of physiology; for, although the filament of the stamen may be considered as analogous to the petiole of the leaf, the style of the pistil is the metamorphosis of a different part, viz. the elongated midrib; the ovarium is, in the scale of metamorphosis, the equivalent to the expansion of a leaf, and the peduncle (or the stalked carpellum, when it occurs,) afford examples of the various modifications of the petiole: hence the lengthened axis or midrib which, in the leaf, is often carried on in the form of tendril, should be likened to the style, of which it is the forerunner, in this series of transformations.

Par. 471. "As all seeds are matured ovula, and *all ovula* are originally enclosed within an ovarium, it is obvious that *naked seeds* cannot exist." Against this we immediately set, as a marginal note, ?! But the contents of the three following paragraphs somewhat lessened the astonishment we felt on the perusal of No. 471; for three modifications of naked seeds are known to exist: 1st, where the scales never assume the true form of pericarp, and the seeds are always and absolutely naked; 2d, where the pericarp, although present, does not close to include the seeds; and, 3d, where the seeds, at first enveloped, grow more rapidly than does the pericarp, which becoming ruptured, the seeds thenceforward remain truly naked? It is a general, not a universal rule, and should so have been stated. The *bull*, however, we suppose, was levelled at the Gymnospermious order of Linnæus; for the seeds of the labiate plants are, it is confessed, although apparently, not truly naked; and yet their pericarps are so thin and so tightly stretched, that, like the web dresses of the opera figurantes, they seem designed to exhibit what they pretend to conceal.

There are some other matters of minor importance, to which the author will do well to direct his attention, whenever a second edition of these Outlines may be wanted; for, notwithstanding the few imperfections we have thought it our duty to point out, we doubt not the book will be found a very useful manual for students, and as such we recommend it to their perusal.

Of the Synopsis, although it professes more, we think much less favorably: the design is bad, the execution worse. But we will not anticipate: every man has a right to state the theme of his discussion in his own words. An extract from our author's preface shall, therefore, introduce his volume.

"In submitting this little book to the public, it is right that something should be said in explanation of the reasons that have led to its preparation; especially as it may to some appear unnecessary, after the many useful, and in several respects very excellent, works that have been already published in illustration of the Flora of Great Britain. These have *all*, with the exception of the Flora Scotica of Dr. Hooker, been arranged upon the principles of a system which, whatever popularity it may, from particular circumstances, have acquired, and however useful it may have been found, in communicating a knowledge of the names of things, does certainly not now tend to the advancement of science, or to an accurate knowledge of things themselves.

"Of course, I allude to the *system of Linnæus*; a system which has almost disappeared from every country but our own, and *which ought now to find no other place in science, than among the records of things whose fame has passed away.* Hence *all* our British Floras are, in this view of the case, defective, with the exception* already made. I might therefore, without impropriety, stop at this point of my explanation; but, in addition *to the fundamental error* now adverted to, there is another of even more importance: the technical language in which these works are written is far from accurate; terms are applied in them vaguely and erroneously, and they so abound with mistakes, most of which are at variance with all correct notions of the structure of plants, that they are totally unfit to be placed in the hands of students. To these observations, the Flora Scotica of Dr. Hooker, and the Flora Edinensis of Dr. Greville, are honourable exceptions."

Upon the principles here laid down we are compelled to join issue both with Lindley and with Gray, especially with the former, who seems to have overlooked, or at least not duly estimated, the difference which truly does exist, and which ought always to be kept in view, between the objects of the so called artificial and natural schemes. Of the *so called,* we repeat; for neither of them are purely what they profess to be, neither of them are in truth what their appellations would denote: the artificial system has striven, yet in vain, to become natural, and the natural as vainly strives to combine with its synthetic powers, the analytical precision of its compeer, thus needlessly forcing itself to be, in many respects, artificial. Better would it have been for both, had each restrained itself to its respective province, and not, by endeavouring to supersede the necessity of an ally, manifested its insufficiency where it had no occasion to be ineffective, and rendered its exertions in its appropriate sphere much less energetic, and of much less worth.

Another object proposed to be accomplished in this work is "to reduce the language in which plants are described to a uniform standard, in correspondence with the purest principles of the science, but divested of unnecessary technicalities: and however far we may dissent from the former opinions expressed by the learned Professor, this, we must agree with him, is a desideratum in botany, and a labour fully worthy of his highest ambition. Hence we confess we were disappointed to find that, even on the titlepage, terms are used as synonymes which ought to express different and sometimes contrary meanings. Thus, the present volume is described as containing the "Vasculares, *or* flowering plants;" whereas, many of the vascular plants, e. g. the ferns and their allies, are destitute of flowers: they are thus excluded by the one term and included by the other; and shortly after we are advertised that "Cellulares, OR flowerless plants, are likewise terms that are used as synonymes. Now, whatever may be said of the mosses, which many botanists believe to have flowers, although they are cellular plants, no one can doubt that the ferns are both vascular and flowerless; nor is this contradiction in terms avoided by defining the vascular plants to be those which have *spiral* vessels, and the cellular (even when vascular) to be devoid thereof; for, passing the impropriety of the term, we have already found that spiral vessels have been described, by Sprengel and others, as existing in the inferior tribes of vegetables, such as the mosses, confervæ, &c. Gray very properly associated the ferns with other endogenous plants, to which their structure and mode of growth show a very strong alliance. But, even granting (which we do not) that the definitions are correct, still distinctions so recondite that botanists the most astute differ in their opinions concerning them, can never be esteemed fit or convenient diagnoses for students, or for general and common use.

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* Why was not the Introduction by Gray added to this list of exceptions? It is arranged on the principles of the natural method, uses to excess the modern nomenclature, and was published in the year 1821. Surely Lindley's harbinger scarcely deserved to have his two thick volumes thus passed over without even a nominal allusion.

The subdivision of the Vasculares, or flowering plants, into Dicotyledones and Monocotyledones, is liable to the same objection; for some of the first not only have more than two, but some of the Monocotyledones have two, others perhaps none; and, in many, the part usually taken for the cotyledon, as in the grasses, is no cotyledon at all. The mosses also have been said to have many cotyledons, although amongst the acotyledonous vegetables; but these parts have lately been called by some pseudo-cotyledons. Neither do the cylindrical and conical form, the branching disposition, nor the concentric structure of the stems, any more than the characters drawn from the reticulated or parallel veins of the leaves, universally hold good: all of them fail; in some examples they are absent, and in others the characters are so obscure as not to be relied on; e. g. Pinus, Cycas, Nymphæa, Cyamus, Hydrocharis, &c.

It is not against these distinctions that we contend, but against their use to the *exclusion* of a more certain and familiar index; an index which we cannot bring ourselves to think "ought now to find no other place in science, than among the records of things whose fame has passed away:" for, in almost every page of the "Synopsis" a like indeterminateness prevails. Thus, the Dicotyledones furnish three divisions, the Di- the Mono- and the A- chlamydeæ, which are described as having, in the first, "Calyx and corolla *both* present; occasionally imbricated and confounded with each other;" which latter part of the definition immediately confounds them with the second, which are said to have the "calyx only present, corolla none," as they are, by the occasional absence of both, confounded with the third. Thus, frequently among the Dichlamydeous plants, only one envelope is found, and occasionally none is present. Some Monochlamydeous plants have neither calyx nor corolla; and some Achlamydeous ones have more apparent calyx than that group of plants which are especially to be distinguished by its presence; e. g. Fagus, Euphorbia, Fraxinus, &c.

We have stated not only that the groups associated in the natural methods, even granting that they are natural, which they frequently are not, have far too discursive characters to be useful as an index; but also that the artificial indexes appended to the so-called natural orders, are less convenient, and far less perspicuous, than the Linnæan artificial system, which for them has been rejected, and is by some denounced as obsolete. It is necessary, therefore, that we justify this assertion by some examples: they might be taken from either of the works placed at the head of this notice, or from almost any other which has been published on a similar plan. We shall select the chief from Lindley's, because, as before stated, his being the most modern work, may be presumed to be the most improved, and, from his official situation, is the most likely to be influential in the botanic world.

Among the Exogenous, Dichlamydeous plants, we find the Ranunculaceæ, which order is defined as having sepals 3-6, petals 5-15; whereas, Clematis, the first genus, is stated to have petals *none*, or shorter than the sepals. Hooker says that the Clematis has no corolla at all. The second genus, Thalictrum, is likewise as obscure; for in it we are told that the sepals and petals are undistinguishable. In Caltha, also, and several other ranunculaceous plants, we read that the sepals and petals are "undistinguishable from each other," or "that they cannot be distinguished;" and yet upon the presence of both calyx and corolla (which are undistinguishable) depends, according to this analysis, the very circumstance of their being ranunculaceous plants. We are far from admitting that, in some of these cases, they are undistinguishable from each other; but that they are difficult of distinction, may be inferred from the circumstance of Gray and Hooker declaring that Clematis, Anemone, and Thalictrum, have no petals, and Smith stating that they have no calyx; one party considering the organs as sepals, the other as petals, yet both acknowledging that but one envelope is present. While Lindley, as before noticed, although he contends for their combined presence, admits that they are *undistinguishable;* and that they are truly so to him, may be inferred from the circumstance that, although he undertakes to revise* the phraseology of Smith, he calls the same parts sometimes calyx, and sometimes corolla; e. g. The genus Helleborus, defined as having a "calyx persistent of five sepals, and petals eight or ten, very short;" and the distinctions between the H. viridis and H. fœtidus are thus given: that in one the *petals* are spreading, in the other the petals are converging; whereas, the petals neither converge nor spread in either, but it is the sepals which do so. The organs which Smith has called (perhaps improperly) nectaries, Lindley chooses to call (perhaps not always more correctly) petals; but, then, what are petals in the generic definition, should also be petals in the specific, and not, as we find them in the genera Helleborus and Aconitum, sepals in the one and petals in the other; e. g. "Aconitum, calyx petaloid;—the upper *sepal* concave and helmet-shaped," &c. A. vulgare, "Upper *petal* arched at the back." Both references, as was the case with Helleborus, being to the same organ.

The Cruciferæ, one of the least exceptionable orders of the natural system, and one that has been the longest and most generally known, as it contains exactly the same plants that are arranged in the Linnæan artificial class Tetradynamia, affords a good instance for comparing the relative perspicuity of the two methods of analysis; and to its examination we unhesitatingly recommend our readers. It may also be permitted us to observe, that, although the Linnæan system be rejected, that here, as frequently elsewhere, the Linnæan diagnosis is resorted to; for, in the analytical table, the tetradynamious character of the stamens is set down as the essential diagnosis. Thus

Vasculares,
Exogynæ, or Dicotyledones,
Dichlamydeæ.
§Polypetalous.
*Stamens hypogynous, &c.
†Ovaria in more than one row, &c.

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* "I have generally adopted its (i. e. the English Flora of Sir James Smith,) specific characters, the phraseology in which they were expressed having been carefully revised." Vide Preface.

††Ovarium solitary, &c.
Disk large,
—— small.
Sepals 2, deciduous.

* * * *

Sepals several,
Stamens tetradynamous, Cruciferæ,
—— not tetradynamous, &c.

Thus, after so many previous considerations, the Linnæan sign is at last resorted to as the most perspicuous, when it might just as well have been at first referred to.

The characters on which the suborders of the Cruciferæ are founded, although important to be known in the physiological history of plants, are any thing but convenient or perspicuous as diagnostic signs: e. g. instead of the Siliculosa and Siliquosa of Linnæus, we find the Pleurorhizæ, Notorhizæ, Orthoploceæ, and Diplecolobe; terms, the distinction of which are derived from the relative positions of the radicle and cotyledons, and the duplication of these latter; thus,

Radicle applied to the edges of the cotyledons, O = accumbent, 1
applied to the back of the cotyledons, O || incumbent,
Cotyledons straight, O || 2
folded lengthwise, O 7 7 3
doubled twice transversely, O || || || . 4

That these characters are not easy of application, may be inferred not only from the minuteness of the organs to be examined, and the difficulty of determining the fact with any but fully-formed seeds, but also from the circumstance that Mr. Robert Brown, undoubtedly one of the most talented botanists of the age, and to whose researches we owe these distinctions (physiologically important, although not systematically convenient,) at first believed that Subularia had the cotyledons doubled twice transversely; and as such it is arranged by Lindley in the sub-order Diplecolobeæ: whereas, they are not so folded, and consequently it ought not to be placed in that subdivision.

In the definition of the Caryophylleæ, it is stated that the "stamens are twice as many as the petals;" whereas, Mœnchia (the old Sagina erecta,) is defined as having "petals four, and stamens four." Sagina procumbens and Sagina apetala (the true S. minuta,) have also petals four; and stamens four; while Sagina maritima (the true S. apetela,) although a dichlamydeous plant, has petals none. Buffonia tenuifolia, or as De Candolle calls it, B. annua, like the other examples taken from this order, which is defined to have the stamens *twice as many* as the petals, has them, like Sagina and Mœnchia, *equal*, e. g. petals four, stamens four. Perhaps Cerastium semidecandrium, with its five stamens and five petals, is scarcely worth adding to the list of exceptions; but it must be remarked that, although the number of Linnæan exceptions has been sometimes exultingly referred to, that there is no convenient mode of reference here, as in the Linnæan artificial system, by which the nonconforming species are associated with their regular allies.

Again, the Rhamneæ are to be known by their stamens being opposite to the petals; whereas, the petals in the Rhamnus, which is notwithstanding a dichlamydeous plant, are often obsolete.

The definition of the Rosaceæ is, like that of many other orders,* very loose and comprehensive, and yet not sufficiently so to include all the plants that are arranged therein. Thus, calyx 4 or 5 lobed, petals 5, perigynous, equal, stamens *either* definite *or* indefinite; ovaries superior, *either* solitary *or* several; 1 celled; ovula 2 *or* more, suspended, very rarely erect; fruit *either* 1 seeded, nuts, *or* drupes, *or* follicles containing several seeds. Herbaceous plants *or* trees, (shrubs should also have been added;) leaves simple *or* compound, &c. And yet, among the plants included in this five-petaled order, the five petals being almost the only character given absolutely, no character varies more from accidental circumstances, even in the normal genus Rosa.

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* Thus, of Order 40 we read, "Calyx superior, usually with two *or* more bracteæ at its base, entire *or* lobed. Corolla superior, monopetalous, *or* polypetalous, rotate *or* tubular, regular *or* irregular. Ovarium with from one to five cells, one of which is often monospermous, the others polyspermous. Fruit indehiscent; one *or* more celled, *either* dry, fleshy, *or* succulent; seeds *either* solitary and pendulous, *or* numerous and attached to the axis; shrubs *or* herbaceous plants, with opposite *or* alternate leaves, &c.

In the same way Order 56, the Apocyneæ, described as "trees or shrubs" with "leaves opposite, sometimes whorled, sometimes scattered," having their "fruit follicular, capsular, drupaceous *or* berried, double *or* single." Orders 11, 12, 28, 31, &c. may also be referred to. Of the last it is said, "Petals 5, or by abortion 4, 3, 2, 1, *or* none, inserted into the base of the calyx, *either* papilionaceous *or* regularly spreading," &c.; stamens definite *or* indefinite, perigynous, *either* distinct, monadelphous, *or* diadelphous; very seldom triadelphous. Fruit *either* a legume *or* a drupa; seeds solitary *or* several, occasionally with an arillus; embryo destitute of albumen, *either* straight *or* with the radicle bent upon the cotyledons; cotyledons *either* remaining underground in germination, *or* elevated above the ground and becoming green leaves." And Order 25, Saxifrageæ, runs thus, "Calyx *either* superior *or* inferior, of 4 *or* 5 sepals, which cohere more *or* less at their base. Petals 5 *or* none, inserted between the lobes of the calyx. Stamens 5, 10, inserted *either* into the calyx (perigynous,) *or* beneath the ovarium (hypogynous), &c. Disk *either* hypogynous *or* perigynous, sometimes nearly obsolete, sometimes annular and notched, rarely consisting of 5 scales. Ovarium adhering to the calyx *or* distinct from it; usually consisting of two parts, cohering more *or* less by their face [quære, base?] but distinct at the apex; sometimes 2 celled, with a central placenta; sometimes 1 celled, with parietal placentæ; rarely 4 *or* 5 celled, &c. Fruit generally a membranous 1 *or* 2 celled capsule, with two bracteæ; rarely a 4-celled, 4-valved capsule, sometimes a 4 celled berry," &c.

In Dryas octopetala, the petals are, as its name imports, even when growing spontaneously, eight or more; whilst in Tormentilla, another of these five-petaled rosaceous plants, they are only four. In Sanguisorbeæ, also, when present, for there are often none at all, (the analytical table says "petals none,") they are only four; and in the genus Sanguisorba they are altogether absent. Alchemilla and Poterium likewise are defined by Lindley as being destitute of corolla, and yet they are analytically arranged among the pentapetalous Dichlamydeæ. We find that, following continental authors, the genus Tormentilla is, both by Gray and Lindley, merged in the genus Potentilla: against this, however, we must protest, on what authority soever it may be attempted. Potentilla is defined, in the Synopsis, as having five petals; Tormentilla, one of its would-be Lindlean species, has only four. Again, the two old species of British Tormentilla were named T. erecta and T. reptans, which are set down in the Synopsis under the names of Potentilla Tormentilla, and P. reptans, without reflecting that there was already a P. reptans; so that, as they now stand, we find in the Synopsis two very different plants both bearing the same appellation. This is but a solitary instance of the careless manner (we can attribute it to nothing else,) in which this compilation has been made: many others might be easily pointed out which but ill accord with the profession in the preface. Even Gray, who likewise joined the two genera, avoided it by giving to Tormentilla reptans the name of Potentilla nemoralis, and to T. erecta the name of Potentilla officinalis.

The Halorageæ likewise are placed between the Circæaceæ and Umbelliferæ, all in the polypetalous section of the dichlamydeous Dicotyledons, and the only two genera enumerated are Myriophyllum and Hippuris, the first of which has no petals in the female flowers, and the latter none at all; and the genus Œnanthe, one of the Umbelliferæ, is defined to have the "universal involucrum wanting," while, in the face of this generic diagnosis, one of its species, Ænanthe pimpinelloides, is immediately afterwards said to be distinguished from the others by having the "universal involucrum many-eaved."

As, among the polypetalous plants, we find some which have all the petals soldered into one, or all become obsolete save one, or in some cases none left at all, thus varying from 5 to 4, 3, 2, 1, or 0; so, among the monopetalous plants, we find the Caprifoliaceæ to be both mono- and poly-petalous: i. e. Lonicera has one petal, Cornus four, and Hedera five: but of this enough; for we are compelled, from consideration both of space and time, to pass over many of the orders with a very cursory examination. Still our attention becomes immediately arrested by a peculiar physiological discovery, hinted at by the division of Anthemis cotula, under the name of Maruta fœtida, from the other species of Anthemis; for this new genus is said to have the flowers radiant; of the *disk* NEUTER, of the *ray* FEMALE. How the female florets of the ray become fertilised by the *neuter* florets of the disk, we must leave the learned Professor to explain: we freely confess that the subject passes our humble understanding; the only guess that we can venture is, that the pistils of some neighbouring Anthemis kindly consent to lend their potential stamens to the disconsolate Maruta, who would seem else condemned for life, as Darwin would have written, to the soft attentions of platonic love. However, the central florets of Anthemis cotula (or Maruta, if it must be so,) are in truth bisexual instead of neuter, and those of the ray are female; and thus we find, on reference, they were described by Cassini, to whom the change of the genus is attributed; so that, instead of having no seeds at all fertilized, the whole become perfected, and consequently the plant will stand in the order Polygamia superflua of Linnæus's Syngenesia. Was it not from the Linnæan nineteenth class that the "connate anthers" were taken, as the most important analytical character (vide table, page 6,) of the Compositæ? all of which are defined as having "the anthers cohering into a cylinder." But are not the anthers of Xanthium distinct? and yet it is enumerated amongst the syngenesious plants, and stands between Achillea and Bideus, without even a hint as to this peculiarity of its structure, which Linnæus noted by excluding it from his nineteenth class. In Tussilago hybrida, likewise, the anthers scarcely, if at all, coalesce.

The Plumbagineæ, which stand among the dichlamydeous monopetalous plants, have their corollæ both "monopetalous and polypetalous; and the Oleineæ, still dichlamydeous plants, and defined as having the calyx monophyllus and the corolla *monopetalous*, and occasionally of *four petals*, include Fraxinus, which genus is, in the first sentence of its definition, thus described: "*Calyx and corolla none*," &c. Order 54, Ericeæ, is said to have the "fruit *capsular*;" and, immediately under this definition, we find an analytical table of the order, in which the genera

Arbutus and Arctostaphylos[*] (we hate these new and useless names,) are distinguished from their associates by bearing berries.

The Gentianeæ, with the same carelessness, have been said to have leaves opposite," and then immediately the order is subdivided into two sections or sub-orders, of which one is distinguished from the other by having the leaves *alternate*. In the analytical table, page 7, Orders 54 and 55 are distinguished from Orders 56, 57, and 58, thus,

" Anthers dehiscing by *pores*, Ericeæ, &c.
" Anthers dehiscing by *valves*, Solaneæ ;" &c.

but, on turning to page 182, we find that Solanum, the very genus that gives name to the order, is defined to have " anthers oblong, opening by two *pores* at the apex." 59, Primulaceæ, a dichlamydeous order, is thus defined, " Calyx divided, five cleft; corolla monopetalous, &c. The third genus, Glaux, is thus defined, " Calyx campanulate, corolla *none*," &c. The Scrophularineæ are described as having opposite leaves, (p. 187;) and three species of the genus Linaria are distinguished by having their leaves either wholly or chiefly alternate, (p. 191.) Digitalis, likewise, one of the most important plants in the order, has alternate leaves. 224, Empetrum, put among the Monochlamydeæ, is described by Smith as having both "calyx and corolla;" and of the Euphorbiaceæ, all of which are classed among the Monochlamydeæ, we find (page 228) this pertinent observation.

Note. " The genus Euphorbia, among Monochlamydeæ, being *destitute of calyx and corolla*, may, by the student, be referred to some order of this division; but in that genus the absence of floral envelopes is to be ascribed to the excessive developement of the involucrum; the other genera of the same order are furnished with calyx."

To whatever cause the absence of calyx and corolla may be attributed, when such characters are taken for an index, plants destitute of both should be put amongst the Achlamydeæ, especially in an analytical work designed, as this professes to be, for students; for no notice of this is taken in the analytical table, page 5, by which the first step of the investigation is to be conducted, and by which it is supposed that " the subject has been so far simplified that as great a facility is given to acquiring a knowledge of botany as can be offered even by the Linnæan system ;" for by it students are to find out unknown plants, and for it they are to reject the Linnæan clue. This note concludes by observing that " there is a tendency to produce a calyx in Cupuliferæ ;" and hence, amongst the achlamydeous plants, we find that Fagus is said to have a six-lobed calyx.

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[*] We scarcely think that the introduction of this, and many other such-like new subgeneric names, can be in consonance with the declaration in the preface, which states that " such discretion has been exercised as has protected the rights of British botanists, wherever they have deserved protection; e. g. Catopodium, Diplotaxis, Maruta, Silybum, Trichonema, Chondrilla, Capsella, cum multis aliis.

Of Order 82, Coniferæ, we read " stamens *distinct*;" and of Taxus, in this order, it is said, "stamens *eight or ten monadelphous*." The account of the fruit of the Coniferæ seems to be likewise very incomplete, if not confused. Order 84, Callitrichineæ, even if separated from Order 37, Halorageæ, which to us appears a work of supererogation, should never have been so widely severed. Myriophyllum and Hippuris, as before observed, have no right to hold the rank in which they now are found.

Hurried as have been the observations which our marginal notes on the Dicotyledons have compelled us to make, those on the Monocotyledons must be still more brief; yet, in justice to ourselves, and in consideration to our author, we must give him a few more hints for the improvement of the second edition of his Synopsis.

Of the sub-class ii. Monocotyledones, it is written, " Leaves generally sheathing at the base, and not articulated with the stem, ALWAYS *alternate*, with parallel simple veins traversing the space between them." Potamogeton densus has its *leaves opposite*; and Hydrocharis, with several of the Aroideæ, have the veins of the leaves, at any rate apparently, reticulated. The order Smilaceæ, in the analytical table, p. 245, is arranged along with those having a superior ovarium, while a note* confesses what every tyro knows, that Tamus, one of the Smilaceæ, has the ovarium inferior. This 98th order, page 270, is furthermore defined as having " Perianthium *inferior*, petaloid, six parted, stamens *six*, ovary *three*-celled, stigmas *three*." But if we examine how the genera agree with the characters of the order in which they are placed, we shall find that several are dissenters: thus, Ruscus has but one stigma, and Paris differs still more widely, having eight stamens, four stigmas, four sepals, four petals, and its berry is four-celled.

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* Why not have put inferior *or* superior in the definition at once; there are plenty of precedents in the volume; that at page 85 would have kept it in countenance. Aroideæ, " stamens definite *or* indefinite; fruit succulent *or* dry; seeds solitary *or* numerous." Herbaceous plants *or* shrubs, stemless *or* arborescent, *or* climbing by means of aerial roots ; leaves *either* with parallel *or* branching veins, often cordate, &c."

In the analysis of the orders, we find that some of the Petaloideæ are distinguished from the others by having *no petals*; and that the two orders which have the "Perianthium wanting" are inter-distinguished by their having respectively their "stems *leafy*" and their "stems *leafless*." Those with the leafless stems form the 88th natural order, Pistiaceæ; and, on turning to page 251, where it is defined more at length, it is said that it contains "floating minute plants, with very vascular, lenticular, or lobed *stems*, LEAVES NONE; flowers appearing from the margins of the stems." The only British genus in this order is the duckweed (Lemna), and in the generic definition the dogma is a third time repeated, that these plants have "no leaves."

The genus contains four species, which are thus inter-distinguished:

"L. trisulca, *leaves* stalked, elliptic, lanceolate, proliferous.

L. minor, *leaves* obovate, flattish above and beneath.

L. gibba, *leaves* obovate, slightly convex above; hemispherical beneath; roots solitary.

L. polyrrhiza, *leaves* roundish, obovate, convex beneath; roots clustered."

Thus we find that four species, all of which have *leaves*, compose a genus that is *leafless*.

Here must our observations for the present cease, and, slightly as we glanced over the dicotyledonous section of the Synopsis, our marginal notes were so numerous, that selecting but a part of it has swelled our review so much, that the Monocotyledones have been necessarily still more lightly touched on. Some whole families, and those important ones, have hardly, or not at all, been noticed, viz. the Compositæ, Umbellatæ, Gramineæ, &c.: these, therefore, we recommend to Mr. Lindley's more especial consideration; for, notwithstanding all its defects, his Synopsis is a valuable work, very much simpler than any other we have met with, and divested in a great measure of those very useless and discordant technicalities that bewilder and disgust the student, without benefiting in any degree the science; and had it been proposed as a conspectus of the natural orders, or as a praxis for the British student, in furtherance of, not as a substitute for, the Linnæan system, most of the objections to the looseness of the definitions would have been cancelled, for then they would have been taken for what they are worth, for what in truth they are, descriptions rather than diagnoses. But when the author declares, "Above all things I have laboured to remove the difficulties that at present attend the study of the natural affinities of plants, both in this country and elsewhere;" when he states that "for this purpose (he has) prefixed to each class and order analytical tables of their contents, in which tables the most important characters are employed to distinguish one thing from another, and the less important peculiarities are kept out of sight;" and when, as the result of his labour, he hopes that, by such means, the subject will be found simplified, and that "as great a facility will have been given to acquiring an incipient knowledge of botany as can be offered even by the Linnæan system," we are bound to tell him that on this point his labour has been wholly in vain. Let him cast his eye over the analytical table, and say whether, to a student, the abundance or absence of albumen in the Oxalideæ and Geraniaceæ, the embryo curved or generally straight in the Paronychiæ, Saxifrageæ, &c., the dehiscence of the anthers, the cotyledons rising above or remaining beneath the ground, the erect or pendulous ovula, the erect or inverted embryo, the glands of the pollen enclosed or naked, the pollen in two or four masses, &c. are *obvious* diagnostic signs? and again, although we must agree (physiologically, not systematically,) with our author, that, "upon the niceties by which the genera of many orders, such as Gramineæ and Orchideæ, are distinguished, some of the most curious parts of botany will be found to depend," still we must contend that such niceties are not *obvious* characters: and this we think that he will himself be ready to confess, if he turn to the list of Corrigenda which, a year after its publication, it was found necessary to append to the volume, and in which several of such characters are erased. Indeed, we procured this page of Corrigenda before we ventured to commence the present task; and, although it has relieved us from many of our difficulties, by the corrections it has introduced, it has, from not being published till so long after the work, but served to confirm more strongly the appropriation of those misappliances which are left unchecked, and to which alone our observations have been attached; for we have expunged all comments on those errors which the author has himself observed, and thus subsequently confessed. Neither can we agree with the doctrine, that "whatever the difficulties may be of becoming acquainted with plants, according to this method, they are inseparable from botany, which cannot be usefully studied without encountering them:" for the Linnæan system, we contend, does separate from a very useful part of botany much of the difficulty in which, by the natural arrangement, it is needlessly involved. "A mineralogist (he continues,) may as well complain of the necessity of a blowpipe, or a chemist of the infinite variety of apparatus which he is compelled to employ, as a botanist of the microscope and dissecting knife." True; it is not of the use but of the abuse of the microscope and dissecting knife that a botanist has a right to complain. An anatomist has no right to complain of the scalpel when he wishes to investigate structure; but it would be ridiculous to compel him to dissect an animal, and ascertain whether the lungs be entire or pierced, before he must call it a bird or a beast, or to open the abdomen of a quadruped to search for the gall-bladder, before he must decide whether it be a horse or not, when the hoofs, the teeth, and other external obvious characters, will more conveniently decide that question. The astronomer royal has no right to complain of the use of a telescope, when he wants to survey the satellites of Jupiter, but it would be ridiculous to compel him to contemplate Blackheath and the park through the instrument alone, when his unassisted eyes will ensure him a better prospect. "It would undoubtedly be more convenient (adds our author,) if knowledge could be acquired with greater facility; but we must take things as we find them, and submit patiently to the difficulties of the road we are forced to pursue." Of a truth; but why *make* difficulties which are foreign to the route? why forsake a straight and easy, for a winding and arduous road? It is confessed that the Southron has no right to complain of the distance between London and Edinburgh; but it would be ridiculous to compel the inhabitants of Glasgow to travel, *via* London, to the Orkneys.

Linnæans, (perhaps erring, but not prejudiced Linnæans,) as we confess ourselves to be, it has been with pleasure, not with jealousy, that we have watched the labours of those who seem to consider themselves as our opponents; convinced that, although not with us, they are for us, as no researches after truth can ever be against us; convinced that the more investigators can be induced to enter this field of inquiry, the more various their objects, and the more different their routes, the more speedily will truth be found, and the more rapid will be the advance of knowledge. At the same time, we are convinced that the preeminent success and brilliant fame of Linnæus has oft-times led his followers astray; led them to devote themselves too exclusively to the denomination and classification of plants, to the comparative neglect of the more interesting and philosophic branches of botany, which were never overlooked by their great master, viz. the intimate structure of plants and the laws of vegetable function.

Much as schisms are in general condemned, schisms in philosophy are eminently useful: they provoke inquiry, and they elicit truth. In no instance have they been more needed, in none have they been more valuable, than amongst the students of the vegetable world: a degree of indolence and apathy, a baneful reverence for doctrines merely because they were Linnæan, as if Linnæus had been any thing more than man; doctrines which were no longer tenable, and which he himself would have been the first to eschew, had he been acquainted with the discoveries of these latter days, had too long and too prevalently distinguished his disciples; and it required the energizing stimulus of sectarian proselytism to rouse them from that inertia which had naturally succeeded so brilliant a career. The Linnæan artificial scheme was never designed, was never fitted to become any thing more than an index to a natural Flora, and a most convenient, a most advantageous index it has been: not that it is without its faults; it has its difficulties, and these we may take some future occasion to point out; but it is more simple, more perspicuous, and more familiar than any other that has ever been devised. The multitude of particulars which necessarily enter into the definitions of the natural orders of plants, for every organ should be investigated, and every peculiarity of structure noted, precludes their use as an index, as a finder: they are, in truth, rather descriptions than diagnoses. The machinery is too complex, far too cumbrous, for ordinary use; it forms, in truth, the subject matter of the science, and, to use it as a clue, is to consign it to a very degrading duty; it perverts the very benefits of the copious details to extremely injurious ends, and resembles the ridiculous attempt of transferring the substance of a volume to its table of contents or to the index at the end.

The late Professor Martyn once observed, that he had been "long convinced in his own mind that we strive in vain to unite a *natural* with an *artificial* arrangement;" yet this Utopian scheme has ever continued uppermost, to bewilder the exertions of systematic botanists, and hence method after method, and system after system, have been invented and declined; change after change, and reformation after reformation, have met with an equal fate. The reformers, or rather the mutilators, of the Linnæan scheme, have too generally succumbed to this philosophic prejudice: by the abolition of the order Monogamia of the nineteenth class, Syngenesia, because the flowers are not compound, as well as other changes, they have attempted to reconcile these antitheses. Even Linnæus himself, in some measure, sanctioned the error by his example; for there is no good reason why Lychnis dioica, Bryonia dioica, &c. should not have been put in the class Dioecia, and other nonconforming species suffered to stand with the artificial allies, which by their structure they had selected for themselves, as the object of the scheme is only to find them out: and, on the other hand, the advocates of the natural methods have too often endeavoured to reduce them to the form of catalogues, and some modern botanists now declare that the natural affinities of plants are so far known that the artificial clue may be dispensed with, and strenuously advocate the doctrine that the single mean is all sufficient, both as an index and a history of plants. Indeed, one has not scrupled to assert that the system of Linnæus "ought now to find no other place in science than among the records of things whose fame has passed away;" but they have all been under the necessity of adding artificial clues, but which clues, as indexes, are, as we have shown, far less convenient and perspicuous than the Linnæan which they reject. Moreover, this natural synopsis itself, as far as it is an index, is confessed, even by the author, to be artificial; as artificial, and far less simple and perspicuous, than the Linnæan: so true is the observation in the preface, that the "tables are entirely artificial, and have not been constructed with reference to any thing beyond what is to be found in the present work (and very carelessly as to this); they are often not applicable to other works, (and, as we have shown, the disjunctive conjunction might also have been introduced here, and the sentence have been read "they are often not applicable *either* to other works *or* to this,") for they are a very n efficient "analysis of the characters of such genera and orders as this book contains."

Notwithstanding his denunciation of our favorite system, we take leave of Mr. Lindley with the most sincere goodwill. He must forgive the strictures we have been compelled to make, and consider them, as indeed they are, the greatest compliment we had it in our power to pay him: other works, and by other pens, might have been slightly mentioned, and some there are unworthy of much comment. A person of less authority, and less favorably known to the philosophic world, could have done much less harm by any erroneous doctrines he might have chosen to promulgate; but a man of Mr. Lindley's standing and ability is likely to lead after him the third part of Britain. Therefore it became our duty to offer a few words of warning, explanation, and advice, which the present aspect of the botanical horizon seemed to render not unnecessary to those who, being about to commence their studies in this department of natural history and philosophy, may be led to cast in their lot with either of the two great parties which so unnecessarily and, in some respects, injuriously divide the botanic world. Neither may they be without their use to the intemperate of either party, if they should show the defenders of the so-called artificial system that a farther step in natural arrangement is perfectly compatible therewith; and more especially should they convince the advocates of the misnamed natural scheme, that, so far from the Linnæan system having become obsolete, it was never more needed than at the present day. For our part, we most firmly believe that the true value of the artificial will prove to be as an index to the natural orders, and that the natural method will never be practically useful without the assistance of the artificial key. Sentiments such as these were entertained by the great founder of the one, who likewise contributed much to the advancement of the other: and sentiments such as these would seem to have been adopted by many, if not most, of the more enlightened botanists who have flourished since. Few, if any, of the disciples of Linnæus have been blind to the imperfections of his arbitrary system; their researches, in truth, have furnished the most potent arms that its adversaries would turn against it. Yet Hudson, Martyn, Miller, Thunberg, Curtis, Withering, Aiton, Salisbury, Persoon, Smith, Sowerby, Sprengel, Hooker, and many others, though eminently versed both in practical and theoretic botany, were so fully convinced of the great utility of the Linnæan artificial scheme, that, never forgetting the superior interest of natural arrangement, they have employed themselves to perfect, not to overthrow, the one, before they could hail with certainty the advent of the other; and most of them have doubted the possibility of its double use.

Some botanists, however, have differently thought, and, pursuing their researches into the affinities of plants, have believed a clue discovered which would dispense entirely with the artificial scheme: and to this we in a great measure owe the recondite investigations into vegetable affinities, which have been prosecuted with laudable zeal both in this country and abroad, but more especially in France; and the French, who never cordially adopted the system of

Linnæus, have earnestly attempted to supersede its use by the much-improved Jussieuan arrangement. English botanists, less nostalgic than their neighbours, adopted the Swedish scheme, when persuaded of its value, and having laboured much and wrought successfully in its improvement, now hesitate to abandon what has proved so sure a guide, for a more speculatively beautiful, though less practically useful, system; for the observations of Linnæus seem as relevant to botany in the present age, as they were to its state as a science when he wrote.

"Multitudo generum est onus memoriæ, levandum systemate.

"Systema indigitabit absque præceptore plantam.

"Ordines naturales non constituunt methodum absque clave.

"Methodus artificialis itaque sola valet in diagnosi; cum clavis methodi naturalis vix ac ne vix possibilis sit.

"Ordines naturales valent de natura plantarum.

"Artificiales in diagnosi plantarum.

"Qui loco methodi naturalis disponunt plantas secundum ejus fragmenta respuuntque artificialem, videntur mihi iis similes, qui commodam et fornicatam domum evertunt, inque ejus locum re-ædificant aliam, sed tectum fornicis conficere non valent."

No words could more fully show the enlarged and liberal spirit of the philosopher, and thus, where his mantle has descended, it will be always found that the most devoted disciples of Linnæus are also to the natural mode the truest friends.

COLLECTANEA.

Floriferis ut apes in saltibus omnia libant,
Omnia nos, itidem, depascimur aurea dicta.

PHYSIOLOGY.

A Female Pregnant who never Menstruated. It has commonly been supposed that women who never menstruate are always barren: LINNÆUS is of this opinion. VELPEAU,* however, mentions an instance which occurred at the hospital of Tours, in which a woman, who had never menstruated, became the mother of a fine child. In general, the absence of the menses depends upon some malformation of the uterus, or the parts connected with it, and therefore is in most cases the sign of sterility.

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* Art des Accouchemens. Paris, 1829.

Case of Hernia of the Brain. By Dr. PIERQUIN. (*Journal des Progres.*)

Rose ——, aged twenty-six years, of a lymphatic temperament, feeble constitution, and small stature, with blue eyes, light hair, was a servant in Romans, in the department of Drôme. When France was invaded by the enemy, the little town of Romans suffered greatly from the brutality of the soldiery. Some women were violated, among whom was the subject of this case. A short time after the attempt upon her person, Rose observed a white discharge, the existence of which she was afraid to communicate to any one. Her health grew worse daily, until at length she became a prey to constitutional syphilis. After having suffered the most excruciating, deep-seated and cephalalgic pains, she entered the hospital, at which time she had a venereal caries about the middle portion of the cranium. All the remedies usually employed in similar cases proved ineffectual. The caries increased daily, and the sanies discharged from it was so fetid that the patient suffered almost as much from it as from the disease. All the senses were unimpaired except that of smelling, and it could not be ascertained whether this resulted from the progress made by the disease, or from the odour of the discharge. It was in this desperate situation she was sent to the General Hospital at Montpellier, which she entered in 1821. The case, considered as the consequence of caries from a neglected venereal affection, offered in itself nothing highly interesting, but it was different when viewed in relation to its bearing upon the physiology of ideology. We at first endeavoured to ascertain the influence of the external air upon the circulation. During the evening we counted 120 pulsations, and from 98 to 100 during sleep. This number was varied by the agreeable or disagreeable nature of the dreams, as was ascertained upon the patient's waking: under the two last circumstances, the protrusion of the cerebral pulp became stronger, whilst it did not exist at all in undisturbed sleep. The first of these phenomena took place equally whilst awake, just as if, in the generation or conception of ideas, the brain was struck with a state of orgasm approaching a genuine erection. During quiet sleep the cerebral subsidence was such, that the organ seemed to repose upon itself, at which time the encephalic pulp withdrew entirely from the lips of the wound. Often at the dressing hour, the patient was not yet awake, and it became necessary to rouse her from ordinary long and sound sleep; the difficulty attending the passage from this cerebral inertia to activity, was marked by such a state of orgasm, that it became necessary at each dressing to take off a considerable portion of the pulp of the brain; an operation always unattended with pain, and unperceived by the patient, who seemed to suffer from it neither moral nor physical inconvenience. So many observations were doubtless sufficient to prove that the brain is the ideologic centre. But in addition to these, we very often subjected the patient to another conclusive experiment. Whilst placed on her seat during the dressing, we entered into a conversation upon some topic that might fix her attention. The moment she became engaged, the oscillatory movements of the brain became at once more rapid and stronger: pressure was now applied upon the brain as strongly as possible, and in an instant the patient lost the use of all her senses, could no longer form an idea, ceased to speak, terminating the conversation suddenly in the middle of a word, which she finished when we removed the compression. The same phenomena took place in regard to conversation commenced, the patient completing the phrase when we ceased to press upon the ideologic organ. These different experiments were not only unattended with the slightest pain, but were unknown to the patient, who never perceived the interruption to her intellectual existence, which we occasioned at pleasure.

From this curious case, we may conclude that the brain is the central organ of the sensations, and that without it there would be neither attention, perception, or memory.

PATHOLOGY.

Paralytic Cases, with Serous Effusion, or with slight Morbid Appearances. (Dr. ABERCROMBIE *on the Brain.*)

When a paralytic attack of the most formidable appearance passes off speedily and entirely, without leaving any trace of disease, we may suppose that no very serious injury has been done to the substance of the brain; and that the disease bears a close analogy to the affection which I have termed Simple Apoplexy; or, in other words, that the cause had consisted of a state of the circulation of the brain, which is capable of being speedily and entirely removed. Many cases again are fatal, and present, on dissection, only serous effusion, often in small quantity. A man, mentioned by Morgagni, had palsy of the right arm, and died apoplectic in two days. On dissection, no morbid appearance was discovered, except serous effusion, both in the ventricles and on the surface of the brain. Another had loss of speech, and palsy of the left side, and died comatose at the end of a month. Considerable effusion was found on the surface of the brain, but very little in the ventricles. A third had loss of speech and palsy of the right side, then became comatose, and died in five days. The ventricles contained about two ounces of fluid; there was also a good deal on the surface of the brain, which appeared to be most abundant on the right side.

I have formerly given my reasons for believing that serous effusion in apoplectic cases is not a primary disease, but a termination of simple apoplexy; and I have described cases in which it existed to a considerable extent without paralysis. In the cases, again, in which it has been accompanied by paralysis, the quantity of fluid has borne no proportion to the symptoms, and has been equally distributed over the brain; except in the case now quoted from Morgagni, in which, too, it is worthy of remark, it appeared to be most abundant on the same side with the disease. From these considerations, I think we may conclude, that, in the cases now referred to, the effusion was not the cause of the paralysis, but the effect of the termination of a certain state of the circulation in a part of the brain, with which the paralysis had been connected from the first invasion of the disease. The whole phenomena of palsy do, indeed, bear evidence, that certain cases of it depend upon a cause which is of a temporary nature, and capable of being very speedily and entirely removed. We see hemiplegia take place in the highest degree, and yet very rapidly disappear; but the most singular circumstance connected with certain cases of palsy, is, that we occasionally see it continue without any improvement for many weeks or months; and then, from some change which entirely eludes our observation, take a turn for the better, and very suddenly disappear.

I do not know to what class I ought to refer the following case, but I shall introduce it here as the most remarkable example that has occurred to me, of long-continued palsy, without any satisfactory morbid appearance.

CASE I. A gentleman, aged 35, while standing in the street, conversing with a friend, suddenly lost his speech; he recovered it after a few minutes, walked home, and made no particular complaint. In the evening of the same day, he suddenly fell from his chair, speechless, and paralytic on the right side, but without coma; being sensible of what was said to him, and answering by signs. He was then confined to bed for several weeks without any change in the symptoms. At the end of three months, he had recovered so far the motion of his leg, as to be able to walk a little, dragging forward the leg by a motion of the whole right side of his body. He afterwards improved considerably in bodily strength, so that he could walk for several miles; but his thigh and leg continued to be dragged forward by the same kind of effort, without any further improvement. He never recovered any degree of motion of the arm or hand; he could not even move the fingers; his speech was very inarticulate and his countenance was expressive of great imbecility of mind. In this state he continued without relapse, and without any further improvement, for fifteen years, when he died at the age of 50. For a month before his death, he had been declining in strength. I saw him about four days before he died, and found him in a state resembling typhus; his pulse frequent and weak; his tongue very foul, and dry in the middle; he made no complaint. He was not then in bed, but was confined to it next day, and died in three days more, of rapid sinking without coma.

Inspection. The membranes adhered firmly to each other, and to the brain, at a spot the size of a shilling, on the upper part of the right hemisphere. There was a large quantity of fluid under the arachnoid membrane, and a considerable quantity in the ventricles. Near the posterior part of the longitudinal sinus, a small part of the sinus appeared to be thickened in its coats, and the inner surface of this part was dark-coloured and slightly fungous. The cauda equina was of a remarkably dark colour, as if it had been soaked in venous blood, but without any change in its structure. No other morbid appearance could be detected, on the most careful examination, in any part of the brain or spinal cord.

The remarkably diseased state of the arteries of the brain, which has been already referred to, as a very common appearance in elderly people, may probably be the cause of temporary interruptions of the circulation, and slight paralytic attacks, which after some time may pass off from changes which elude our observation. Perhaps something of this kind occurred in the following case, for which I am indebted to Dr. Simson.

CASE II. A gentlemen, aged 58, in 1805, was attacked with hemiplegia of the right side, without coma. After the usual treatment, he improved gradually; and at the end of five months he had quite recovered, except that his right leg continued rather weaker than the other. In 1812, he had another attack, preceded by violent headach. From this likewise he gradually recovered, though his recovery was much less perfect than after the former attack. He had four other attacks betwixt 1812 and 1817, which were carried off by the usual remedies, bloodletting and purging. In 1817, he had another and severe attack, likewise in the right side; his speech was unintelligible, and his mouth much drawn to the left side. He was relieved by bloodletting, &c. but from the effects of this attack he did not recover. He remained paralytic in the right side, his mouth twisted, and his speech very indistinct. In November 1818, he began to be affected with gangrene of the toes, which advanced slowly, and terminated fatally, in April 1819. From the time of his first attack, in 1805, to the second, in 1812, he always became confused and felt headach, when he attempted to read or write, so that he was obliged immediately to desist; but after the attack in 1812, he was able to read and write without any confusion or uneasiness, and even without the use of spectacles, which he had formerly employed.

Inspection. The dura mater seemed considerably thickened; the pia mater also seemed thickened, and was very vascular. There was extensive disease in the arteries of the brain, their coats being thickened, and in many places ossified. This was very remarkable in the principal trunks of the carotids and vertebrals, and was likewise traced into the smaller branches. The internal carotids seemed considerably larger than usual, and their coats were much thickened; and the vertebrals and their branches were affected in the same manner in a still greater degree, particularly about the tuber anulare, where the basilar artery was quite brittle, and gave off its branches in the same condition.

Death from the Bite of a Viper. By Dr. THOMAS, of Schlawe. (*Journ. der Pract. Heilkunde.*)

It has been erroneously asserted by FONTANA and other writers, that the bite of the European viper is never fatal to man. Many cases on record have already proved the contrary. Such accidents are particularly dangerous to children, because the virus of serpents acts in an inverse ratio to the size of the animal bitten. The following case occurred in Germany.

A girl, eleven years old, was bitten by a viper above the right internal ankle. Immediately afterwards, she felt a burning sensation throughout the limb, violent colic, and distressing thirst, followed by frequent vomiting. No remedy was administered; the patient only drank freely of water, to relieve her thirst. In three hours after the accident, symptoms of suffocation occurred, and the girl soon died. The body quickly passed into a state of putrefaction.

Hydrops Pericardii. SOEMMERING says that only a few drops of fluid are found in the pericardium in a natural state. TESTA has not seen it exceed a spoonful or two. CORVISART is not inclined to consider the secretion as morbid, *unless it exceed six ounces.* Sometimes, in dropsy of the pericardium, the fluid is collected in numerous small sacs, or hydatids, adhering either to the free portion of this membrane or to the heart.—*North American Med. and Surg. Journal.*

SURGERY.

Case of total Section of the Trachea and Œsophagus, cured by leaving a fistulous Opening for the continuance of Respiration. By Dr. LUDERS. (*Revue Médicale.*)

A man, æt. 37, athletic and unusually strong, wishing to escape imprisonment for robbery, tried to cut his throat with a pruning knife. He was found lying on his belly, the head supported on his two hands; he had still strength enough to run some distance to the hospital, where he came some hours after the accident. The wound in the neck was three inches wide, and six long; it had evidently been made by repeated cuts; it divided transversely the trachea between the first and second rings, as well as the œsophagus, and reached the cervical vertebræ, without wounding either important blood-vessels or nerves; the upper muscles of the neck only were cut, the sterno-cleido partially. In order to inflict this wound, the man must have plunged the weapon deeply by the side of the trachea, and cut from within outwards. He was pale and speechless, and only able to breathe when lying on the belly, a position which permitted the blood to flow from the wound, in any other, breathlessness and threatening suffocation came on. Indeed, these symptoms having happened on attempting to examine the wound while sitting, he violently resisted all efforts again, and remained all night lying on his belly.

As soon as I was satisfied of the complete section of the œsophagus, considering the case hopeless, I pronounced that the man would die from inanition. I tried to pass into the lower end of the œsophagus an elastic gum canula, in order to throw in some warm milk; but violent vomitings and threatening of suffocation came on. As there was much thirst, the mouth was occasionally moistened with milk, which partly came out by the wound, and occasionally fell into the trachea, provoking excessive cough: it, however, calmed the feeling of thirst. He occasionally also sucked a slice of citron, and had an enema of gruel, with fifteen drops of Tinct. Opii.

Next day, I found a great change: the patient had not slept, and from time to time had thrown up, by a violent convulsive cough, quantities of coagulated blood mixed with mucus. The difficulty of breathing and stertor caused by the repletion of the bronchiæ were gone; the patient was lying on the back, and able to sit up. My plan, then, was to unite the two ends of the trachea by several stitches, and, after the union of the outer wound, to keep the head close to the chest by a proper bandage. A strong thread was passed through the lower fold of the wound, which was then raised close to the upper; but, on trying to join them, so strong a convulsive cough came on, that the danger of suffocation was imminent, the face becoming of a violet colour, and the patient throwing up his hands, stretching the neck till the lips of the wound were again sufficiently separated to allow of free breathing through the opening. I can only explain this by supposing the upper part of the trachea and larynx paralyzed, from the division of some of the twigs of nerves supplying them. After many other attempts, I was obliged to be satisfied with bringing the head close to the chest by means of a bandage, and carefully clearing the wound from mucus and blood.

The same day, quantities of bloody mucus continued to pass out of the wound; the pulse was calm and full; no fever. In the evening, he was hungry. I had a tin tube, in the form of S, with a large funnel at one end, and an ivory point at the other, so as to administer aliment by the wound. At present I was satisfied with an opiate enema, to blunt the feeling of hunger.

Third day.—Some sleep, without cough, and, excepting hunger, felt well; no fever. A cupful of milk and yolk of egg was thrown into the stomach, by means of the apparatus: this relieved hunger, but not the thirst, which was only allayed by milk taken into the mouth, and passing through the wound, (another proof of the opinion that thirst has its principal seat in the mouth and œsophagus.) Another attempt at union of the lips of the wound failed. In the evening, a lavement, as there was pain in the bowels, and no motion for three days.

Fourth day.—Slept better, and felt well; breathing freer; and he observed that, in taking milk into the mouth, a portion of it passed into the stomach when he pressed violently the head against the chest. The wound was covered with a thin coating of lymph, without the appearance of inflammation or suppuration. Another attempt at union again brought on threatening of suffocation.

Fifth day.—The power of swallowing improves; the outer wound diminished in size; the patient swallowed a cupful of barley water and milk, the greater part of which reached the stomach. The introduction of the food by means of the tube always excited violent vomiting and cough. Small, slow pulse. A laxative lavement had no effect.

Sixth day.—Bad night; great agitation; violent hoarse cough, which only rarely expelled some puriform mucus through the outer wound; breathing short, hissing, and accelerated; anxious look of the countenance. The wound looks well, and is covered with lymph. Notwithstanding these appearances of bronchitis, the exhaustion of the patient from loss of blood and want of nourishment; the state of the pulse, which varied much, sometimes full and hard, then small and soft, but generally frequent; I suspected rather a spasmodic state than inflammation. The patient disliking milk, warm water was substituted; a lavement given; a sinapism on the chest, and a warm bath.

Seventh day.—All symptoms calmed; the patient bathed in perspiration, smelling of sour milk; urine clear, like whey, and smelling like perspiration, (yet giving no indication of acidity.) These two qualities of the sweat and urine continued while the patient lived only on milk. The discharge from the bronchiæ continues, and there is much difficulty in removing the mucus which accompanies the bleeding of the wound. The power of swallowing by the mouth increases.

Eleventh day.—Cough diminished. For the first time, the patient today ate some soup with bread, of which very little came through the wound, causing it to bleed and provoking cough. The wound of the œsophagus was not to be perceived, and thus nature alone had done what art could not. The lower lip of the trachea is a good deal raised, so that the distance here is about an inch from the upper, and parallel to the lower margin of the wound of the integuments. At this stage the little irritability of the respiratory organs might have permitted a junction by suture, in the case of there being no paralysis of the upper part, if that operation had not been interdicted by the change that had taken place in the œsophagus, the substance of which would have been torn by the stretching necessary; and thus the most difficult part of the cure again undone. The only question, then, was to direct the cicatrization so that a substance of new formation should fill the gap of the trachea. The chief difficulty appeared to be to hinder the granulations from springing up in excess, and closing the windpipe. To prevent this, I determined to continue the same diet, to give only liquid food, simple and in small quantity, and chiefly milk: in fact, during fifteen days, milk, occasionally mixed with yolk of egg, was his only food. Under this regimen, the pulse came down to forty, the cough lessened, the wound gradually healed; there was a motion every fifth or sixth day, by means of lavements. The patient was able to sit alone, but not to walk.

Seventeenth day, (March 6th.)—The posterior and lateral sides of the trachea were perfectly formed, yet, when the outer opening was closed, the patient could neither breathe nor speak, and very shortly a feeling of suffocation came on. This was not caused by the shutting up of the larynx or glottis; for a sound, introduced into the wound, came out through them: we must suppose it to arise either from paralysis of the larynx, by the lesion of some of its nerves, or from want of exercising the part. However, I determined to persevere in uniting the external wound, (which was now a round opening, about eight lines in diameter,) as long as there was no difficulty of breathing, and the inner part of the trachea kept free from fleshy granulations.

March 12th.—The patient begins occasionally to breathe through the nose; but suddenly a suffocating cough came on, with hissing breathing, and expectoration of mucus mixed with blood. These symptoms were occasioned by the filling up of the lower part of the trachea by granulations, so that the air could hardly enter from the outer wound. The introduction of a sound removed them, and the granulations were kept down by caustic.

15th.—The breathing has been free till now, when similar symptoms to those on the 12th recurred, and were removed by the same means. It appeared to me necessary, both for the purpose of repressing the granulations and keeping open the passage for the air, to introduce a leaden canula accurately fitted.

March 17th, this was done without trouble, and was worn several weeks without causing any essential change; only the patient, by degrees, took food more solid and nourishing. The external wound formed a round opening moulded on the canula, discharging a little serum, from the irritation caused by the daily removal and replacement of the canula.

In fifteen days after the introduction of this instrument, the opening of the upper part of the trachea and larynx continued pervious, and the patient occasionally breathed through the nose when the canula was out. This was withdrawn, for the purpose of trying again to close the external wound, but at the end of four days, the canal being almost closed by the granulations, it became necessary again to introduce it, to prevent suffocation: however, a round hole was made in the canula opposite to the lower orifice of the larynx, so as to habituate him to breathing through the nose, and possibly to reestablish the power of speech.

In fact, on the 5th of April, when the patient closed the canula with the finger, he could not only breathe by the nose, but even speak, though in a thick and dull voice. I conceived hopes of a complete cure; but all attempts at establishing natural breathing without the canula failed. A cork was put in the canula, but the patient could only keep it there a few hours, so much mucus accumulated, which he could not free himself from by spitting up, and the dyspnœa became intolerable. This mucous secretion rendered abortive all means tried to do without the canula: the only thing left was to render the use of this tube less irksome. A silver one was substituted in its place, which constantly remained, while a second one, made to fit it, could be removed and cleaned as often as required. A thin gauze was worn over the opening, to prevent extraneous substances from passing in. It is now two years, and the man is well. Sometimes he has cough, and bleeds a little at the opening in the neck, caused possibly by the irritation of dust inhaled.

Reflections on the above case. Paré saw a man who, with the stroke of a poignard, had completely divided the trachea and œsophagus, so that the latter had shrunk so low that it could not be laid hold of. Although the wound of the trachea was united by suture, the patient died four days after the accident; but he had previously recovered his voice, and could tell his murderer. Paré supported him by giving analeptic lavements, and holding under his nose fresh bread steeped in wine.[*] This case proves the possibility of a complete section of the two canals, without the wounding of large vessels or nerves, and shows that the accident may not prove immediately fatal. **Placentius**[†] speaks of the simultaneous lesion of the trachea and œsophagus, in an attempt at suicide, without wounding the jugular veins: the man was cured in a month. S. **Heleviz**[‡] has a similar case, where the man survived ten days. **Purmann**[§] describes a wound made by a sharp instrument, by which the jugular vein and the trachea and œsophagus were wounded, and the throat cut obliquely across. After vainly trying to stop the hemorrhagy, he tied the vein. The wounds in the two canals were healed in four weeks, that of the neck in twelve. **Starck**, **Debruck**, **Hurtsnig**, **Mursinna**, and **Rust**, describe cases of a similar nature where cures were effected, the treatment being very simple, bringing the head close to the chest, supporting life by lavements, &c.

It results from the case, the particulars of which have been described,

1st. That a complete section of the trachea and œsophagus, without injury to the great blood-vessels or nerves, may be caused by an attempt at suicide; but it cannot take place unless the cut be made by means of a curved knife, plunged in by the side of the trachea, and then drawn from within outwards. Death by cutting the throat is one of the most difficult problems of legal medicine, when one must decide, from the appearance of the dead body, whether suicide or murder has taken place. The above case proves that the complete section of the two canals is not necessarily mortal. I have no doubt but, under more favorable circumstances, it might even be cured without leaving any permanent inconvenience.

2d. This case shows the healing powers of nature: here nature not only preserves life, but reestablishes so far the œsophagus, that it is able perfectly to resume its functions. The cure was entirely her work. However, the diet, at first from necessity, then designedly prescribed, and the use of warm milk only, had contributed a good deal towards this rare result, that a large wound of such irritable organs, continually exposed to the air, and in a vigorous and sanguine subject, should be cured without an inflammation requiring the application even of a single leech, and without a single drop of pus being formed in the progress of cicatrization. For the first ten days, the wound was kept constantly moist with the warm milk which was swallowed. It appears to me that milk, as an animal liquor, is the best fomentation for an abraded surface. With poultices of milk, and low diet, the worst-looking ulcers are healed sooner than with excitants, &c. In general, low diet has not the credit which it deserves in the treatment of chronic diseases, external as well as internal. The state of the sweat and urine in this case proves to what extent it acts in altering the organizations of the body.

The ease with which, in the case described, the trachea suffered the presence of a foreign body, and the quickness with which it accustomed itself to it, show that one may frequently have recourse to this as a means of relief. This fact would call the attention to tracheotomy in cases of croup, when it has its seat exclusively in the larynx and trachea.[‖] The great point is to gain

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[*] Paré, l. iii. c. 29.

[†] Chir. l. xx. Obs. Med. rar. a S. Schenck, Francfort, 1400, l. ii. p. 247.

[‡] Obs. Phys. Med. Aug. Vind, 1680. Obs. 63, p. 210.

[§] Cur. Chir. Obs. 1710. Obs. 16, p. 73.

[‖] But can we ever determine, during life, in what part croup commenced, or to what parts the inflammation is limited? Mr. **Porter**, whose work on time. Here the child does not die by the mechanical shutting up of the trachea, but of the glottis: generally, the cause of death is the exhaustion of the vital principle; congestions of black and liquid blood in the lungs, the right side of the heart, and the sinuses of the brain, and, what lengthens the agony of dying, an abundant exudation into the pericardium and ventricles of the brain. These phenomena are more frequently found on dissection, than the existence of exudation in the air-passages, and occur from the first moment of the inflammation by the spasmodic closure of the glottis. I think I am able, by numerous facts, to prove that the membranous exudation is less frequent than generally supposed. As soon, then, as the symptoms of want of oxydation of the blood occur, and which are generally considered those denoting exudation, but which indicate only the approach of death, as the earthy colour of the face, the blueness of the lips, the difficulty of breathing, the anxious look, the disposition to throw back the head, and the pulse small and frequent; then is the time to perform tracheotomy, and to leave a silver canula in the trachea, not only to prevent the fatal result, but also to give time to try the means proper for subduing inflammation, or to procure the exit of the false membrane.

It appears to be a subject worthy of consideration, whether, in cases of laryngeal phthisis, the placing a canula in the trachea would not be advisable. M. LUDERS has generally found, on opening subjects dying of this disease, a state of chronic inflammation of the larynx, and a secretion of puriform mucus, with swelling and thickening of the mucous membrane; and death has been caused by suffocation from closure of the glottis.

Aneurism of the Arteria Innominata, involving the Subclavian and the Root of the Carotid, successfully treated by tying the Carotid Artery. By VALENTINE MOTT, M.D. Professor of Surgery, New York.

Moses R. Gardner, ætat. 51, by profession a farmer, of sound constitution and good habits of life, applied to me some time in March for advice.

He gave the following relation of his case: About three years ago, while occupied in removing a building, and compelled to lift heavy weights, he was attacked with pain in the upper and back part of the neck. This lasted until the month of January, when it extended to the right shoulder and arm, and continued until the following May; it then partially subsided, and he observed his voice was becoming hoarse, which he attributed to exposure and consequent cold. About eighteen months since, while shaving, he discovered a small swelling at the upper part of the breast bone, but did not remark any

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the surgical pathology of the larynx and trachea deserves attention, well observes, in reference to the question of performing the operation of bronchotomy in cases of croup, that "the effusion of coagulated lymph is very generally confined to the larynx alone; but still, in a number of cases, the inflammation commences in the bronchial cells, and proceeds upwards in the windpipe. This is an affection in which an operation could not possibly be of service, and there is no mode of distinguishing accurately as to what has been the original seat of the disease. This one consideration must involve every case in obscurity, and render the success of an operation a matter more dependent on chance than on judgment." (P. 48.) An analysis of Mr. Porter's excellent work is contained in our Journal for November 1827, p. 439.—EDITOR.

throbbing in it until some time afterwards. He had consulted a physician, but received no positive opinion on the case.

Upon examination, I found above the sternum a pulsating tumor, about the size of a pigeon's egg, spreading some distance under the clavicular and sternal portions of the right sterno-mastoideus muscle, in the course of the subclavian artery, and extending as low down upon the pleura as the second rib, compressing more or less the bronchial tubes, and producing, on the least coughing or exercise, a wheezing, not unlike that of asthma. He shrunk from the least pressure upon it; complaining of impeded respiration, followed by pain. Its pulsations were synchronous with those of the heart, and decidedly aneurismal.

After fully explaining to him the nature of his disease, and its probable fatal termination should it increase and be left to itself, I advised him to return home; to avoid all exertion; to be occasionally bled, and to confine himself principally to a vegetable diet; but should he observe the least increase either of the tumor or any of his symptoms, to come again to me, and I would decide on the propriety of an operation.

After that time I occasionally saw him; he seemed to understand his case fully, and was very desirous to take the chance of the operation: but, as I could not observe any material change in the disease, I recommended him to pursue the same directions, and wait patiently until it should occur.

On the 12th of September, he again came to the city. I found the tumor above the sternum had increased to the size of a large walnut, and upon a careful application of the stethoscope, it was evidently encroaching more upon the chest. The whizzing sound (*bruit de soufflet,*) could be heard; the thoracic viscera were sound, the respiratory murmur being distinct throughout. His respiration was very much impeded by speaking, walking, or coughing, and almost entirely suspended by the least pressure upon the tumor; the action of the right carotid was much more feeble than that of the left; no pulsation could be discovered in its branches; the right subclavian, external to the scaleni muscles, was natural, while the axillary and brachial arteries could hardly be felt; at the wrist no pulse could be found; the pulsations of the arteries of the left side were natural. His general health was good.

In reflecting upon this case, and comparing the relative situation of the parts, I was pursuaded the aneurism was of the arteria innominata, involving the subclavian and the root of the carotid.

I thought further delay unnecessary, and he being willing to abide by my judgment, after having stated to him the chances of the operation, I resolved on its performance. From the evident interruption in the circulation of the right arm, and the apparent effort of nature to effect a spontaneons cure, I determined upon tying the carotid first, to observe the result, and afterwards to secure the subclavian, should it be required.

On the 26th of September I operated. The artery was taken up in the usual manner; no material change was observed.

27th, nine A.M.—Slept well, and feels refreshed; thinks there is more room, as he expresses it, in breathing; complains of a little soreness of the tonsils in swallowing; pulse fifty-eight, regular, and tranquil; skin natural, pulsation and size of the tumor evidently diminished.

Nine P.M—Much more restless from mental alarm; pulse fifty-eight, tense. In other respects, the same as in the morning; being habituated to laudanum, was permitted to take a teaspoonful.

28th, nine A.M.—Slept well after the opiate; breathes easily, and says he takes "a more satisfactory breath" than he did before the operation; feels much less of the pulsation in the tumor; pulse sixty-three, not so tense; skin natural; cough much less. Ordered a dose of calcined magnesia and Epsom salts.

Nine P.M.—Has passed a comfortable day; his wife, who arrived from the country since the morning, expressed her surprise at the improvement in his voice and breathing; and the difference in the beating of the tumor. Pulse of the right radial artery very distinct, but intermitting once from ten to fifteen beats; in the left arm, eighty; coughs frequently, and expectorates freely; skin natural; tongue a little white; salts have not operated. Ordered the dose to be repeated, and, if restless after its operation, to take his usual anodyne.

29th.—Saluted me this morning upon entering his room, with a full and fine voice, and said he was well enough to call on me; salts operated freely; thinks his cough and expectoration much less. I found him lying down, and breathing quietly; pulse seventy-one, and regular. The radial artery of the right arm beating as last evening, with fewer intermissions, but of longer continuance; skin over the tumor more wrinkled; pulsation appears less, and feels weaker. Directed to continue his tea, toast, and gruel.

Eight o'clock.—As well as in the morning; takes a full breath without the least wheezing; pulsation in the wrist very distinct and regular; in the left sixty-two to the minute. Continues the opiate.

30th.—Found him lying more recumbent than at any former period; pulse seventy, and regular; right radial artery does not beat quite so firm as yesterday; wound discharging a little, was dressed.

October 2d.—Says he now feels as if he would get well; cough rather more troublesome; pulse fifty-seven; pulsation of the right radial the same; his bowels not being free, directed Submur. Hydr. grs. viij.; Sup. tart. Potassæ, Pulv. Jalapæ, āā ℈j. M. Evening. Medicine has not operated; directed a dose of Sulphate of Magnesia.

3d.—Cough and bronchial effusion very much diminished by the operation of the cathartic; pulse sixty-eight.

4th.—Feels very well; passed a good night; all his symptoms improved; pulse seventy-four; can bear any degree of pressure upon the tumor without the least pain or difficulty of breathing.

10th.—Continues to mend, and is sanguine as to his recovery; pulsation of the tumor hardly perceptible, and to the touch very much diminished; cough less troublesome; left pulse sixty-six; right, very feeble.

16th.—Ligature separated and came away last night; the tumor above the sternum, and pulsation, entirely disappeared; cough and breathing better; voice nearly natural; pulse sixty-six; now and then a very faint pulsation of the right radial artery; right hand a little swelled, and feels numb, and complains of the want of power to close it.

22d—Wound just healed; weakness of the arm very considerable; fingers very thick and clumsy; arm swelled, and pits upon pressure; no pulse in the right radial artery; breathing very easy; cough and expectoration much less; can sleep easy in any position, which he has not been able to do for many months.

26th.—Left town this morning for his residence in New Jersey. (Condensed from the *American Journal of Med. Sciences.*)

INTELLIGENCE.

MEDICAL ESTABLISHMENT OF THE COURT.

We understand that the following appointments have been made:

Physicians in ordinary to his Majesty: Sir Gilbert Blane, Bart., Sir Henry Halford, Bart., and Sir M. Tierney, Bart.

Physicians extraordinary: Sir James Macgrigor, Dr. Maton, Dr. Warren, and Dr. Macmichael.

Physician to the Household: Dr. Francis Hawkins.

Sergeant Surgeons: Sir E. Home, Bart. and Sir A. Cooper, Bart.

Surgeons extraordinary: R Keate, Esq., B. C. Brodie, Esq., H. Earle, Esq., and J. M. Arnott, Esq.

Physicians in ordinary to the Queen: Sir H. Halford, Bart., and Dr. C. M. Clarke.

Physicians extraordinary: Dr. Turner, Dr. Southey, and Dr. Locock.

Surgeon to the Queen and to her Majesty's Household: Robert Keate, Esq.

His Royal Highness the Duke of Sussex has appointed Dr. Seymour, physician to St George's Hospital, to be one of his physicians in ordinary.

OFFICIAL ACCOUNT *of the* POST-MORTEM EXAMINATION *of* HIS LATE MAJESTY.

The body exhibited but little sign of putrefaction; and the anasarca had disappeared, excepting some slight remains of it in the thighs.

Notwithstanding the apparent emaciation of his Majesty's person, a very large quantity of fat was found between the skin and the abdominal muscles.

Abdomen. The omentum, and all those parts in which fat is usually deposited, were excessively loaded with it. The abdomen did not contain more than an ounce of water.

The stomach and intestines were somewhat contracted; they were of a darker colour than natural, in consequence of their containing mucus tinged with blood; and in the stomach was found a clot of pure blood, weighing about six ounces.

The liver was pale, and had an unhealthy granulated appearance.

The spleen, although larger than usual, was not otherwise diseased; and the pancreas was in a sound state.

The sigmoid flexure of the large intestine (the colon) had formed unnatural adhesions to the bladder, accompanied by a solid inflammatory deposit, of the size of an orange.

Upon a careful examination of this tumor, a sac or cavity was found in its centre, which contained an urinary calculus, of the size of a filbert, and this cavity communicated, by means of a small aperture, with the interior of the bladder at its fundus. In other respects the bladder was healthy, and the prostate gland did not appear to be enlarged. The kidneys were also free from disease.

Thorax. Two pints of water were found in the cavity of the right side, and three pints and three quarters in the left side of the chest. The left lung was considerably diminished.

The lower edge of each lobe of the lungs had a remarkable fringe, which, upon examination, was found to be formed by a deposit of fat.

The substance of the lungs had undergone no change of structure, but the mucous membrane lining the air-tubes was of a dark colour, in consequence of its vessels being turgid with blood.

The pericardium (or heart-purse) contained about half an ounce of fluid but its opposite surfaces in several parts adhered to each other, from inflammation at some remote period.

Upon the surface of the heart and pericardium there was a large quantity of fat, and the muscular substance of the heart was so tender as to be lacerated by the slightest force: it was much larger than natural. Its cavities upon the right side presented no unusual appearance, but those on the left side were much dilated, more especially the auricle.

The three semilunar valves at the beginning of the great artery (the aorta) were ossified throughout their substance, and the inner coat of that blood-vessel presented an irregular surface, and was in many parts ossified.

The original disease of his Majesty consisted in the ossification of the valves of the aorta, which must have existed for many years, and which, by impeding the passage of the current of blood flowing from the heart to the other parts of the body, occasioned effusion of water into the cavities of the chest and in other situations. The mechanical impediment to the circulation of the blood also sufficiently explains those other changes in the condition of the body which were connected with his Majesty's last illness, as well as all the symptoms under which the King had laboured.

The immediate cause of his Majesty's dissolution was the rupture of a blood-vessel in the stomach.

HENRY HALFORD.
MATTHEW JOHN TIERNEY.
ASTLEY PASTON COOPER.
C. B. BRODIE.

OBSTETRIC SOCIETY.

To the Editor of the London Medical and Physical Journal.

SIR: Having been directed to furnish you with a short account of the Obstetric Society, I send you the inclosed.

I am, Sir, your obedient servant,
F. H. RAMSBOTHAM, *Hon. Sec.*

14, *New Broad street; June* 1, 1830.

In consequence of the numerous instances which had occurred within the knowledge of many medical practitioners, of great mischief produced by the indiscriminate practice of Midwifery, some gentlemen were induced to form themselves into a Society at the end of the year 1825, for the purpose of promoting obstetrical knowledge, and of protecting the public from the injuries to which they were exposed. The Obstetric Society originally consisted of thirty-one members, and since its establishment no others have been added: it includes the names of most of the present and former physicians and surgeons of the obstetrical institutions, as well as most of the lecturers on midwifery in this metropolis. A subscription of two guineas from each member has been found sufficient to meet all the expence which it has up to the present time incurred.

As it was the great object of this Society to act in unison with the three medical corporate bodies, and as not one of those bodies acknowledged midwifery as a part either of Physic or Surgery, by examining candidates on their capability to practise this branch of the profession, the most proper and direct course for the Society to pursue was thought to be that of addressing the three corporate bodies, stating to them strongly and broadly the feelings which the Society entertained on the subject, and requesting to know whether they were disposed to obviate the causes of the calamities complained of. Provided, however, the constituted medical authorities did not consider themselves invested with sufficient powers, or possessing those powers did not feel inclined to exercise them for the public good, the Society declared their intention of appealing to the legislature for the accomplishment of that object, which would then appear to be attainable by no other means. They suggested at the same time that all the desired advantage might be gained, and the proposed protection of the community would be most easily secured, by each body inquiring for itself, through its own examining board, into the extent of the knowledge of midwifery possessed by each candidate who came before them. This mode of proceeding seemed to the Society to offer the fewest obstacles and be most free from objections, as it would leave the relative situations of the three corporate bodies undisturbed, whilst it would secure to the public the certainty of having qualified practitioners in midwifery, as well as in the other departments of the profession.

To this letter, which was dated March 20th, 1826, the apothecaries first replied, and in their answer (bearing date April 4,) they stated that they were well satisfied of the existence of abuses occasioned by the indiscriminate practice of midwifery, and would be happy, if it were in their power, to render assistance in promoting the laudable object of the Society; but they were of opinion that their Act did not give them any authority to superintend and regulate the practice of midwifery; they considered the subject well entitled to parliamentary interference, and stated their willingness to conduct examinations in midwifery, provided parliament would commit to them the responsibility. In the reply of the College of Physicians, on June 9th, the grand question was completely evaded: it merely consisted of a resolution to the effect that "the College was best satisfied when midwifery was practised by those who had been found, on examination before them, to be competent to the exercise of the profession at large by their knowledge and acquirements; that the delivery of women was an art of manual skill, and therefore in the province of surgery; and that the treatment of the diseases of pregnancy and the puerperal state was a part of the general practice of physic, and as such liable to the inquiry of the Censor's Board;" and, in the answer of the College of Surgeons, which was not received till July the 19th, four months after the Society's address was presented, the positions laid down by the Society were tacitly admitted as true, by the expressions "that the College were not invested with sufficient power to obviate the evils stated by the Society, to arise from the want of legislative regulations over the practice of midwifery.

The Society now felt that its next endeavour might with propriety be directed towards obtaining the interference and powerful aid of government in a cause which so intimately concerned the whole community, and a resolution to the effect of addressing his Majesty's secretary of state for the home department was passed in January 1827. Still, however, being willing to afford to the three corporate bodies another opportunity of co-operating with the Society in the settlement of the question, the Society resolved to address them once more, apprising them, at the same time, of their determination to apply for the assistance of government.

The replies of the chartered bodies on that occasion followed each other more speedily, first from the surgeons on February 17th, 1827, who stated that their College was instituted solely for the purpose of examining and attesting the capability of persons to practise the art and science of surgery; consequently, being solicitous that those persons who conduct the examinations should be particularly skilled in surgery, the College had excluded from the court of examiners those surgeons whose time and attention had been occupied in learning and practising the obstetric and pharmaceutical departments of medicine; that the council of their College did not perceive how it could compel even its own members to submit to examination in midwifery; that no tribunal for examining and attesting the capability of persons to practise midwifery had yet been instituted; but that the College would willingly form a board of examination for the midwifery department of medicine, provided the government of the country deemed it necessary, and would give them the requisite authority for that purpose.

On February 22 the apothecaries returned an answer, referring the Society to their former letter; and, on February 27th, the physicians replied, who declined giving any more explicit answer.

The Society then addressed a memorial to Mr. Peel, March 20th, 1827, in which the replies from the three corporate bodies were commented upon, the great responsibility which attaches to the practitioner in midwifery demonstrated, the necessity that exists for every medical man making himself acquainted with that branch of the profession, and the impossibility of detaching it from the general science of physic and surgery, or of studying it separately, clearly shown. It was also brought before the notice of the secretary of state that instruction on midwifery and the diseases of women and children, at that time, constituted no necessary part of the courses of lectures, as required for examination on medicine and surgery; and the object of the memorial was declared to be to oblige all who present themselves for examination before the three corporate bodies, to procure such information on the subject of midwifery as should give them competency to practise it; and to induce the examiners not to neglect the inquiry into such competency in those who present themselves before them as candidates for admission in their respective bodies. It was urged that the protection sought might be best afforded by the by-laws of the corporate bodies being so altered as to ensure professional instruction and examination in this branch of medical science, and by the repeal of those other by-laws, or the discontinuance of those customs by which men who have added practical information on midwifery to their other acquirements are excluded from the examining Boards. It suggested that the same power which was given by Act of Parliament to the corporate bodies to prevent unqualified persons practising the other branches of medicine and surgery, should be extended also to midwifery; and, lastly, it declared that the members of the Society "could not allow themselves to be selected for the purpose of forming a *separate Board* for the regulation of the practice of midwifery, as such a proceeding would imply a *partial* acquaintance with a profession which they had studied as a *whole*, and which they had practised as a *whole*, in common with the other members of the bodies to which they individually belong."

At the same time a communication was made to Mr. Peel, that a deputation of the Society had been empowered to wait on him, for the purpose of elucidating whatever might appear imperfectly explained in the memorial, and the right honourable Secretary appointed that those gentlemen should attend him on the fourth day after the receipt of the papers. At this interview, Mr. Peel stated he had read over attentively the memorial and correspondence; he approved the intention of the Society; admitted the importance of its objects, and promised to refer the memorial to the three corporate bodies, whose subsequent answers to the Secretary of State were transmitted to the Society in July 1827.

In their official answer, the College of Physicians considered the examinations entered into at the College on diseases of women and children a sufficient test of the candidate's knowledge on those points, and the act of delivery an operation of a surgical nature. Yet the surgeons, in their reply, far from agreeing with the latter position, contended that, by admitting practitioners in midwifery into their council, they would weaken that respect the public now entertains for, and the confidence it now has in, that council; they observed " they had hitherto elected as examiners such surgeons as they believed had, in the early period of their lives, been accustomed to pass their days in hospitals, and their nights in the study of their profession, and not in the avocation of a lying-in chamber. They, however, informed the Secretary of State that they had, since the Society's first application to them, passed a resolution, requiring certificates of attendance on two courses of lectures on midwifery from each candidate for a surgical diploma.

The Society of Apothecaries, on the other hand, in their reply, considered the object of the Obstetrical Society as tending highly to the benefit, welfare, and happiness of the community, and to the usefulness of the medical profession." They " called the serious attention of the Secretary of State to the subject, and expressed a hope that some legislative measure might be devised which would in future afford a security to the public that practitioners in midwifery were well educated in that branch of the medical profession, and fully competent to the practice of it." But, although perfectly convinced of the propriety and necessity of instituting examinations on this subject, they thought the powers they possessed did not authorise them to undertake such a duty.

The statements brought forward, and arguments used, by the three corporate bodies on this occasion, demanded severally the notice of the Society; and accordingly a second memorial was laid before Mr. Peel, bearing date March 21, 1828, in which the Society, after disposing of those replies, submitted to his consideration an easy and simple plan for placing the practice of midwifery on a respectable footing, viz. that the colleges of physicians and surgeons should be recommended to annul their respective by-laws, by which the Fellows of the former and the members of the Court of Examiners and Council of the latter College, are precluded from the practice of midwifery; and that they should also be recommended to examine all their candidates on midwifery, as well as on the other branches of medicine and surgery. While, to the Socicty of Apothecaries, also, authority should be given to institute examinations on midwifery.

In the month of January 1829, the committee of the Society was informed by one of its members, that he had had an interview with Mr. Peel on the subject of the Society's second memorial, in which Mr. Peel entered on the different points suggested to him with the greatest kindness and most deliberate attention: he promised to refer that part of the memorial containing the Society's propositions to the corporate bodies for their reconsideration; to see the leading members of the Physicians and Surgeons' Colleges on the subject; and, having so done, to forward the replies from the medical bodies to the Society.

After the lapse of five months, during which time no fresh communication reached the Society, the chairman having written to Mr. Peel, requesting to know whether any reply had been forwarded to him from the Colleges of Physicians or Surgeons, received from that gentlemen a note, inclosing a paper which had been delivered to him a few days before by the president of the College of Physicians. In this paper the question was approached for the first time with something like earnestness by the College of Physicians, the president, having briefly adverted to the history, constitution, and objects of the College, said "they could not repeal their by-laws respecting practitioners in midwifery; but proposed, in the name of the College, that, as often as any physician offered himself for examination preparatory to his licence to practise and declared his intention of adding midwifery to the practice of physic, he should be examined before the Censor's Board, by some licensed physician at that time practising, or who has practised midwifery, who should be called in as an assessor for the purpose of inquiring into his qualifications in the manual branch of that art." No reply has up to this time been received by the Society from the College of Surgeons. The Company of Apothecaries, however, in accordance with their declaration made both to the Obstetric Society and Mr. Peel, have evinced a strong desire to forward the views of the Society: the chairman of the examining Board of that body called upon the secretary of the Society in August last, to inquire how far the Society had obtained their objects in regard to the Colleges of Physicians and Surgeons, and in what way the Apothecaries' Company could further assist the Society. He said they had resolved to require certificates of attendance on two courses of lectures on midwifery and the diseases of women and children from each candidate. They were still of opinion that their Act did not give them the power to examine on midwifery; they would be willing to undertake any duties of examination in midwifery that the legislature might think proper to require of them, but they were all agreed that any such extension of their Act must come from the government, on the suggestion of the Obstetric Society, and was not to be considered as solicited and promoted by the Apothecaries' Company.

In consequence of this spontaneous declaration on the part of the Apothecaries' Company, the committee of the Obstetric Society addressed Mr. Peel once more, calling his attention again to the objects and wishes of the Society, and to the determination of the corporate bodies; and ventured to request the Secretary of State to obtain for them the opinion of the law officers of the Crown as to the power possessed by the College of Surgeons and Apothecaries' Company with regard to examinations in midwifery; in order that, if this opinion should be favorable, the two bodies first mentioned might at once act upon it; but, should it prove unfavorable, the Society then hoped the right honourable Secretary would concede to these two bodies the requisite powers for that purpose, and at the same time sanction the introduction into the House of Commons of a Bill rendering it penal for any man to practise midwifery who is not a legally authorised physician, surgeon, or apothecary.

This letter called forth from Mr. Peel, in Dec. 1829, an answer to the effect that, if the Apothecaries' Company were uncertain as to the full extent of the powers which they legally possess, and were desirous of obtaining a legal opinion on the point, he must leave it with the Board to exercise their discretion in respect to taking such an opinion. He must decline making a special reference from the Home Department to the law officers of the Crown upon the subject; neither could he undertake the introduction into the House of Commons of a Bill such as was proposed by the Society.

An abstract from Mr. Peel's letter was forwarded to the Company of Apothecaries, and a reply from the secretary to the Court of Examiners was received by the Society in the beginning of February of this year, inclosing the opinion of the attorney and solicitor general that the Court of Examiners of the Apothecaries' Company have no power by the Act of Parliament to examine in the art of midwifery, which is in no respect comprised in the Act.

At the next meeting of the committee, it was resolved that the chairman of the Society should wait upon Mr. Peel as a deputation from the Society, for the purpose of forwarding the objects in view. This resolution was complied with: the conversation was principally directed towards the offers made by the Colleges of Physicians and Surgeons; and the opinion of the attorney and solicitor general respecting the power possessed by the Society of Apothecaries under their Act was brought forward.

The Society was next called together on the 18th of this month, and it was determined that the three corporate bodies should be again addressed. It was suggested to the College of Physicians, that the regulation they proposed should be extended to all candidates who present themselves for a licence at the Censor's Board, instead of being limited to those only who, at the time of their examination, might declare their intention to practise midwifery: for it appeared to the Society it might happen that candidates who had no intention to practise midwifery when they applied for a licence, might be inclined, at a future period, to add that branch of practice to the practice of physic; and it seemed but just that all physicians who were not precluded by the established rules of the College from practising midwifery should prove before competent judges their fitness for that duty.

To the College of Surgeons the Society expressed their satisfaction at the regulations they have adopted requiring from their candidates' certificates of attendance upon lectures on midwifery, and trusted that they would see the necessity of instituting examinations by their own examining Board on this branch of surgical science: and to the Society of Apothecaries they offered their thanks for the attention which their former letters had received from that Society, and expressed their desire to render their assistance to them in endeavouring to obtain an Act of Parliament, authorising the Society of Apothecaries to examine those candidates who came before them as to their qualification to practise midwifery. The Society now wait for any other communication from the three corporate bodies.

It must be observed that, on the institution of the Obstetric Society, it was resolved that its objects should embrace the regulation of the practice of midwifery with regard to female as well as male practitioners; but it has been thought proper to direct the attention of his Majesty's government at present only to those persons practising midwifery, over whom the medical bodies ought to possess some control : no mention has, therefore, been made, as yet, of the injuries to which the poorer classes of the community are exposed, from the mismanagement of women imperfectly educated in the duties of their profession.

The Society, however, has not been unobservant of such dangers, and is most desirous that some means may hereafter be adopted to correct this grievous abuse.

It is also to be remarked, that the Society was originally formed with the sole intention of ensuring the welfare of the public, as far as midwifery is concerned, and that at one of their first meetings it was resolved that, when the object of regulating the practice of midwifery shall have been carried into effect, its existence shall become extinct.

MONTHLY LIST OF MEDICAL BOOKS.

[Medical Works cannot be entered on this List except a copy be sent for the purpose; the titles of Books having frequently been transmitted to us, as published, which have not appeared for weeks, or even months, after.]

An Inquiry as to the Expediency of a County Asylum for Pauper Lunatics. Second Edition, with considerable Additions. By William Palmer, D.D. a Magistrate for the Counties of Devon and Somerset.—8vo. pp. 36. Exeter. Hatchard, Piccadilly.

Report of the Managing Committee of the House of Recovery and Fever Hospital in Cork street, Dublin, for one Year, ending 4th January, 1830. With the Medical Report annexed.—8vo. pp. 112. Dublin, 1830.

A concise Treatise on Dislocations and Fractures: being a Selection from the most approved Foreign and English Surgical Authorities, from the Days of Celsus to the present Time. Fourteen Plates.—12mo. pp. 114. London, 1830. Bulcock, Chelsea.

In this little volume, the surgical student will meet with much instructive practical information, in a concise yet perspicuous form.

An Outline of the Sciences of Heat and Electricity. By Thomas Thomson, M.D., Regius Professor of Chemistry in the University of Glasgow; F.R.S. Lond. and Edinb. &c.—8vo. pp. 583. Plates. Baldwin and Cradock, London, 1830.

An Experimental Inquiry into the Structure and Function of the Spleen. By William Dobson. 8vo. pp. 32. Wilson, 1830.

Annali Universali di Medicina. Fasc. di Giugno.

METEOROLOGICAL JOURNAL,

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

June	Moon.	Rain gauge.	Thermom.			Barometer.		De Luc's Hygrom.		Winds.		Atmospheric Variations.		
			9 a.m.	max.	min.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 A.M.	10 P.M.	9 a.m.	2 p.m.	10 p.m.
20	●		60	68	46	29.46	29.43	50	52	WNW	WNW	Fine	Fine	Fine
21			52	57	48	.37	.32	54	55	WNW	ENE	—	—	Rain
22		.29	53	68	43	.24	.53	55	53	NNE	N	Rain	Fine	Cloudy
23			55	63	54	.71	.73	53	51	N	NW	Fine	Cloudy	Fine
24			63	65	56	.74	.73	50	57	NNW	ENE	—	Fine	—
25		.31	60	64	60	.63	.51	62	61	ENE	ENE	Rain	—	Cloudy
26			65	72	58	.56	.65	58	54	SSW	SSW	Cloudy	—	Fine
27			67	71	57	.68	.72	52	52	NW	W	Fine	—	—
28	☽		69	74	60	.72	.66	51	51	S	SSW	—	—	Cloudy
29			68	71	58	.71	.83	50	49	WSW	W	—	—	Fine
30			63	69	55	.87	.89	48	51	W	S	—	—	—
July														
1			65	68	58	.78	.62	51	54	ESE	ESE	—	—	Cloudy
2		.40	62	69	56	.55	.44	56	56	SE	S	Rain	Show'ry	Cloudy
3			62	67	55	.35	.52	54	54	ENE	NW	Show'ry	—	Show'ry
4		.30	60	69	57	.64	.76	52	52	SW	SW	Fine	Fine	Fine
5			63	67	59	.84	.88	55	54	WNW	WNW	Cloudy	Cloudy	Fine
6	○		67	67	60	.84	.68	54	56	WSW	WSW	Fine	Fine	Show'ry
7		.06	65	67	56	.47	.50	53	53	SW	WSW	Rain	Fine	Fine
8			63	65	52	.55	.42	52	51	W	WSW	Fine	—	Rain
9			59	63	55	.30	.42	51	50	W	W	Cloudy	—	Fine
10			61	65	58	.61	.72	49	49	W	W	Cloudy	—	—
11			59	65	55	.64	.48	53	55	SW	SW	Fine	Cloudy	—
12			63	66	53	.40	.76	58	53	SSW	W	Cloudy	Fine	—
13	☾		61	70	56	.96	30.00	51	50	WSW	WSW	Fine	—	—
14			64	72	61	.95	29.86	50	49	SW	SW	—	—	—
15			68	70	60	.81	.92	49	51	SSW	SSW	—	—	—
16			66	66	55	.85	.92	51	50	SW	SW	—	—	—
17			65	67	54	.87	.74	49	55	SW	SSW	Cloudy	Cloudy	Rain
18			59	64	55	.66	.70	58	68	SW	SW	Rain	Rain	—
19	●	.66	64	65	57	.81	.91	62	59	WSW	SW	Fine	Cloudy	Fine

The quantity of Rain fallen in June, was 2 inches and 20-100ths.

NOTICE TO CORRESPONDENTS.

The article from Hastings was immediately inserted in the proper channel, and highly approved of. We never doubted the good taste of our friend, and return him our thanks for this additional proof of his opinion of our own.

CASTIGATOR *lays on the scourge with too coarse a hand. He will perceive that we have referred to the subject in the present Number.*

The Reports offered by Medicus *will be very acceptable.*

Communications have been received from Dr. *and* Mr. D. GRIFFIN, Dr ALEXANDER THOMSON. *&c.*

We must decline interfering editorially *in the affairs of the Western Hospital. If* "An Injured Man" *chooses to forward us a letter with his name subscribed to it, we will insert it.*

We must entreat our friends to be particular in their designation of this Journal. From the similarity of title which the proprietors of one of our contemporaries have deemed it expedient *to adopt, Communications intended for us sometimes fall into other hands.*

ERRATUM *in the last Number.*—In the running title of each page, from p. 65 to 71, for "Mr." read Dr. Addison.

THE LONDON

Medical and Physical Journal.

N? 379, VOL. LXIV.] SEPTEMBER 1830. [N? 51, *New Series.*

For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty, in Europe and America, were under deeper obligations than to the *Medical and Physical Journal of London*, now forming a long but invaluable series.—Rush.

ORIGINAL PAPERS, AND CASES,

OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER AUTHENTIC SOURCES.

To the Editor of the London Medical and Physical Journal.

Sir: I have accidentally found, among some other manuscripts, a Report on the Causes of the Sickness which prevailed in the fourth Division of Infantry of the British Army, consisting of near 6000 men, in Spain and Portugal, during part of the years 1811 and 1812, which was sent by me to Sir James M'Grigor, the inspector general of hospitals; dated St. João de Pesquiera, May 1812. On some future occasion it may perhaps be of use, as a record of facts, in the preservation of human life: it will also bring to the recollection of some who served with me, the remembrance of many days of toil and misery; and it may help to remind others of labours which are nearly forgotten.

I am, sir, your obedient servant,

G. J. GUTHRIE.

2, *Berkeley street; August* 14, 1830.

DISEASES IN THE PENINSULA.

The diseases of Spain and Portugal, on the southern and western frontier, in summer and autumn, very much resemble those of hot climates in general, and, the nearer the approach to the south, the greater is the similarity; so much so, that I have frequently seen fevers at Gibraltar, Cadiz, and in the plains of the Guadiana, in every respect agreeing with the description given of the bilious remittent and yellow fevers of the West Indies and of the American states; as sudden and violent in their attack, as rapid in their progress, running the same train of symptoms, and leaving frequently the same results.

The difference of heat between the plains of Castile and of Estremadura is not very great: in the hot months of July, August, and September, the rivers and tracks of torrents from the neighbouring mountains are nearly dry; and they run generally in valleys or low grounds, which were marshes in winter and spring, and afford, in the hot and dry months, a large decomposition of vegetable matter, which is greatly assisted by the violent heat of the day and the great dews by night. The extreme heat also predisposes much to disease; of which the natives are so much aware, that they always, if possible, avoid exposing themselves to a midday sun; from whence arises their custom of dining at twelve, and taking their siesta, or sleeping for three or four hours afterwards, if their circumstances will permit; or they employ that time in various household concerns within doors. The British troops, on the contrary, never take the slightest precaution of the kind, or shelter themselves from the heat in their private occupations, and the necessities of a military life frequently demand their exposure; they, therefore, suffer much from the diseases prevalent in the country, or naturally predominating with the season of the year. In the wet and cold months of March and April, in the provinces of Portugal and of the western part of Spain, north of the Tagus, the obvious diseases are, synochus, inflammatory affections of the chest and limbs, and intermittent fevers for the most part amongst those who had suffered in the autumn. These continue with the warmer weather of May and June; but, in June, July, August, and September, the diseases more peculiar to warm climates show themselves with the excessive heat. The attack is more sudden, the excitement greater, and the determination to the head frequently excessive in the latter months. The effects of heat are combined with those of marsh effluvia, the fevers are remittent and intermittent: in many, the excitement, which is at first great, is soon, however, followed by extreme debility, general yellowness of skin, excessive irritability of the stomach, great discharges of vitiated bilious matters, petechiæ, glassy appearance of the eyes, dilatation of the pupil, coma, and death in a very few days: but this aggravation of disease is infrequent, or runs a longer course, to the north of the Tagus. The patient slowly recovers; has probably a paroxysm of intermittent from time to time, or only an occasional febrile uneasiness; does not recover the natural complexion; and, even when there is every appearance of convalescence, the least exertion will cause a relapse. In general, recovery is very protracted: frequently, after an interval of three and four weeks, the relapse would be sudden, and carry off the patient in a few hours; and in some instances the malady has been supposed to be apoplectic, yet the appearances on dissection did not warrant this conclusion. Dysentery, which in particular constitutions is also supposed to arise from marsh miasma, is not a formidable disease during the summer months, and even in the first weeks of October, after the commencement of the occasional rains, nor until the month of November, when, with the cold and damp weather, the attendant fever has become typhoid, with great debility: it is then exceedingly dangerous, inasmuch as the means of cure, so successfully employed when the fever is simple, continued, or even remittent, are contra-indicated by the extreme debility experienced in the cases of typhus not suffering a decided treatment to be enforced; the relief of the febrile symptoms, or means employed to obviate death from debility, frequently assisting in establishing a chronic state of dysentery, that eventually carries off the patient.

The fever, in the greater part of the admissions in the different regiments of the division, in the months of November, December, and January, was typhus mitior or gravior, depending much on the constitution of the patient. In the recruits and relapsed cases it was always the latter, and where the interval, or state of convalescence, had been unfavorable, was generally unfortunate. In the month of February, with the return of spring, some inflammatory affections of the chest appeared, but in certain constitutions the fever soon became typhoid, and the event fatal.

The officers during this period suffered equally with the men, particularly from June to Christmas. Intermittent and remittent fevers, in the worst forms, were observed in several, and considerable subsequent derangement of the abdominal viscera; but, as they were all young men, generally of good constitution, had the means of procuring good clothing, sufficiency of food, and shelter from the inclemency of the weather, during the siege of Ciudad Rodrigo, and in the subsequent month of January, few suffered from typhus, and none died.

The mortality amongst the inhabitants of the different villages, in the period alluded to, was greater than that of the troops, especially in the summer season, and in places where the soldiers were not constantly quartered; which may be accounted for from the wretchedness of their situation, and frequently from the want of appropriate remedies.

From the comparative history of warm climates, and from the experience of four years by the British army in Spain and Portugal, these diseases are known in autumn to be endemic, and that the natives suffer from them as well as the troops. They arise from the influence of excessive heat and marsh effluvia, and are to be avoided only by non-exposure to their exciting causes, more especially when the body is predisposed to disease. There are many circumstances exclusively connected with a military life that cause this predisposition, independent of the susceptibility natural to young persons in a foreign country, and in which their manner of living is perhaps totally altered. A combination of these causes has produced a disease so general amongst a certain number of people as to excite an idea of its being contagious, especially when it has occurred with troops that have been but a short time in the country. It is, however, now generally believed not to be communicable from one person to another, whilst it preserves the true remittent or continued form of fever arising from excessive heat and marsh effluvia. At a later period, when the influence of these causes has ceased, the body, on the application of other accidental exciting causes of fever, being in a state of predisposition for disease from the effects of former illness, is soon debilitated; the assemblage of symptoms denote what is called typhous fever, and a disease is formed capable of reproducing itself by communication, as has been well marked here in several instances. In 1809, when the army suffered so severely in the plains of the Guadiana from remittent fever in September and October, and from dysentery and typhus in the three subsequent months, I was in the habit of ordering two fresh orderlies daily to keep up an establishment of sixteen from one regiment only. Every hospital was in the same situation, and, in the present instance, at the same period of disease the troops suffered considerably, not only in men who had been some time with the sick, but in others who had come from some little distance in an apparent state of health.

During the spring and summer months of 1811, the fourth division was most actively employed, and much exposed to the wet and hot weather. In the month of August, during a march of sixteen miles from Frontera to Crato, the heat was excessive, and one day so much so as to cause 300 men to fall out of the ranks. In September, the division was cantoned in the villages in front of Almeida, in the vicinity of the Turon and Duas Casas rivers; and it would appear, the effects of former fatigue, and the influence of heat and marsh effluvia, were great, and particularly observable in the seventh regiment, which was quartered on each side of the river; 203 admissions of fever occurring, of which three died, and 122 were sent to the rear.

From the 20th of September to the 20th of October, this corps suffered much from fatigue, privation of food, heat, and the occasional rains, which fell very heavily. During the time they bivouaced, 200 fevers were admitted, one died in regimental hospital, and sixty-three were sent to the rear.

From the 20th of October to the 20th of November, 156 fevers were admitted; six died, twenty-six were sent to the rear.

From the 20th of November to the 20th of December, the division, on an advance to Ciudad Rodrigo, to prevent the entrance of a convoy, suffered much from every kind of hardship and privation; the weather being extremely cold, the easterly winds most piercing, and the troops hardly under cover, without proper clothing, and with a short allowance of food. Of the seventh regiment, 124 fevers were admitted; none died, thirty-two were sent to the rear.

To the 20th of January, 144 fevers were admitted; seventeen died, and twenty-three were sent to the rear. At this period the fevers were generally typhous, the debility great, and frequently those patients who relapsed from a former fever, after an intermediate state of convalescence, or who were almost in health, died in a day or two. In this month, during the siege, the division was much exposed, from the insufficiency of the quarters allotted to the troops, from the hard weather during the siege, and the heavy rains immediately following it.

To the 20th of February, 105 fevers were admitted; forty-one died, and eighteen were sent to the rear.

To the 20th of March, ninety-one fevers were admitted; nine died, and 158 were sent to the rear: the regimental establishment breaking up on the division marching to the south.

In the six months, there were 1329 admissions from all complaints: of these, 86 died in regimental hospital, and of which 75 were recruits; 427 were sent to general hospital, including 320 fevers, of which 160 died. Of the 246 dead in the six months, 169 were recruits, out of 353 landed at Lisbon in June 1811; 77 were old soldiers, out of 1145: that is, nearly half of the recruits, and one sixth of the old soldiers.

The fortieth regiment, nearly under the same local circumstances, and of the same strength, suffered in a proportion somewhat less; having 1189 sick admitted into the regimental hospital from the 20th of March unto the 20th of September: of these, 869 were fevers, of which 446 were sent to the rear. In that period, 24 died in regimental hospital, 156 in general hospital. The fortieth regiment received 400 men from England in July from the second battalion, and these also suffered infinitely more than the older soldiers, and from the same causes as the seventh regiment; but, being a better sort of men in general, the mortality was not so great. Of 450 recruits, 102 died; of 1117 old soldiers, seventy-eight died in the six months: that is, nearly a fourth of the recruits, and a fourteenth of the older soldiers.

The third battalion of the twenty-seventh, nearly composed of Irish and of young men, during this period remained remarkably healthy, possessing no advantage over the others in local situation until December, and being rather inferior in every respect to the seventh and fortieth regiment in point of regimental economy: most of these, however, had been two or three years in the country, and the drafts they received were Irish boys, more accustomed to hardships and less easily subdued by it. From the 20th of September to the 20th of March, there were admitted into the regimental hospital altogether 454 sick only; of which, 259 were sent to general hospital, eight died in regimental hospital, and fifty in general hospital.

In December, the twenty-seventh regiment, being nearly naked, were sent from the front to Coimbra, and remained away until the beginning of February, returning complete in every thing, but avoiding thereby the siege of Rodrigo, and the difficulties and hardships of the month of January; which, I think, had a great effect, both as to the prevalence of disease and the subsequent mortality.

From the 20th of September to the 1st of March, no man was sent from the division supposed to be in a dangerous state. On the 1st, the regimental establishments were broken up.

The state of the seventh regiment was always an object of concern and particular attention to the commanding officer, the general of division, its medical officers, and myself; and I believe every thing our means would permit were tried. They were, as much as possible, protected from the weather. Straw and hay mats were made, on every change of quarter, for the men to sleep on; their messes, and the cleanliness of their houses, were rigidly attended to; the night guards and duties were reduced as much as possible; they were never allowed to occupy or remain in a house with a sick inhabitant. The blankets, as they came up, were given to the convalescent men, in preference to the usual mode of so many per company. No man was put on duty unless perfectly strong. During the siege of Ciudad Rodrigo, near one hundred men, mostly recruits, who were doing duty with the regiment, were left in their old quarters, under proper officers, and an additional sum was drawn from their pay to procure them a better mess. The quartermaster general and myself frequently examined their quarters, and gave more room if we thought they were confined; and the general officers of brigade and division frequently inspected the hospitals.

Judging from these circumstances, and the superior attention paid to the seventh regiment, they should have been at least as healthy as others, where the same strictness was not observed; which was, however, not the case, probably from their suffering the whole time the more combined operation of all the causes of disease, and which, under the existing circumstances, could not readily be avoided.

A fertile source of disease in this country, and which might readily be prevented, arises from the paying off the whole balance due to the troops, whenever the money can be procured: thus furnishing them the means of being drunk for the greater part of three or four days, instead of purchasing daily or weekly such articles of subsistence as could be obtained, and which, in addition to the ration, would secure to them a breakfast in quarters. This fact is so notorious, that the surgeons, and even the officers who pay the money, generally consider an increase of sickness a matter of course.*

Disease is also greatly aggravated by the mode of conveyance from the regiments to the establishments in the rear. This is usually effected through the means of the commissariat, either by mules or bullock cars, in or upon which the sick are exposed to the heat, wet, and indeed all changes of weather. These conveyances even were not given as required, but as they could be spared: consequently, the sick can only be removed every three or four days, and, when the depot is six or seven leagues in the rear, it generally requires two nights on the road, (certainly with cars,) and, during these two days and nights, (independently of the exposure to the weather,) the attention paid to them medically, or to their accommodation at night in quarters, is but trifling; so that men who leave their regiment after an illness of a couple of days, especially in the autumn, during the prevalence of remittent fever, frequently die upon the road, or shortly after they reach the place of their destination. If they escape, their disease is, for the most part, certainly increased. But if each division had a competent conveyance of its own, the journey to the first hospital would be accomplished with one halt; and as, during the unhealthy season of the year, the troops are nearly stationary on one line of march, at that halting place the non-commissioned officer could secure a supply of straw or mats to keep them from the ground. The three spring waggons attached to the division are, from construction and other causes, independent of the insufficiency of their number, frequently useless, and are a greater expense than a well-arranged ambulance would be on different principles.

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* This was shortly afterwards put a stop to.

The regiments in Portugal are kept up by draughts from the battalions at home, and, in obedience to the orders on the subject, are as much as possible drafted by complete files; attention, I believe, being paid only to reject old men, or those who, from accident, are unfit for active service, and not much to the age and appearance of the young ones, in consequence of which many are sent to this country who are incapable of performing the duties of a soldier. This was very evident in the recruits, or draft, sent from the second battalion of the seventh regiment to the first, and who arrived at Lisbon in June, in number 353: of these, eighty-seven never joined the regiment, and the greater part of those that did join were totally unequal to the service required of them. They had embarked in summer, left Lisbon in August, and reached their regiment on the 26th of September at Fuente Guinaldo: having, therefore, been removed to a climate several degrees hotter than their own; marched three weeks with a heavy load they were unaccustomed to in the worst season of the year, and which they could not have done without injury even in England. The ration of a pound of meat, including bone, and a pound and a half of bread, or one pound of biscuit, is hardly enough for growing boys, if issued regularly; but, when three days' allowance is given at once, it is in most instances eaten by the morning of the third day; so that, until the next issue, which may not be until the evening of the next day, they are without food. The recruits of the seventh suffered much from this cause; and they unfortunately arrived at a time (during the movement from Guinaldo to Sabugal,) in which provisions were extremely scarce, and issued in small quantity; they had a great deal of fatigue, and lay out without blankets during some wet weather. Their bodies were naturally at this moment predisposed to disease; in many it was already formed; and the subsequent season of the year being most unfavorable to such subjects, it is reasonable to suppose they must suffer accordingly. In fact, they never did recover the injury they had sustained, were most miserable objects, and were as readily distinguished from the older soldiers as if they had belonged to another regiment.

The great heat in summer renders it desirable to load the soldier as little as possible: the blanket, or great coat, is therefore taken away; hitherto generally the former, to avoid losing the coat, which is only replaced every three years, whereas new blankets are issued yearly, if they can be procured; but, from the difficulty of conveyance to the army on the frontier, the troops do not get them at a proper time. In my opinion, a soldier should be complete with blanket and coat by the 1st of October, to protect him from the cold and damps of the night, which are so great in a warm climate. The seventh regiment had not more than one blanket between two men in December, and were not complete in January; so that relapses could not fail to occur from that cause alone, for little assistance could be procured by the soldiers from the inhabitants; and occasionally, in fact twice during the winter, from the incidents of the war, the little comforts they could procure were for a time taken away, rendering them, of course, more susceptible when exposed.*

From a consideration of several drafts sent to this country, and particularly the inutility of the greater part of the 353 men sent in June to the seventh regiment, I would suggest the necessity of selecting men who have been some little time habituated to the life of a soldier, for the drafts to Spain and Portugal: or, if the want of men will not allow that to be done, of not sending out boys of seventeen and eighteen, especially if English, that have been brought up in manufacturing towns, as they are generally of weakly constitutions, have been little accustomed to hardship, do not readily bear them, and are, in fact, but a nominal increase of strength. The men chosen for this service should be embarked in October, in large transports or men of war, these being always the most healthy, from the greater facility afforded the officers in attending to the men, from their having a larger space to move about in, even with an equal proportion of tonnage, and from their always having fresh air in bad weather, the hatches being open, and a number of men upon deck; which cannot be suffered in small brigs of 150 or 180 tons burden, in which, with every care, they are generally wet and much confined. On their arrival at Lisbon in November, I would recommend their being quartered in proper places in the vicinity, or within thirty miles, for three or four months, until they become a little accustomed to the mode of life they had to undergo, and which is very different from that of a soldier at home. They should be regularly messed twice a day, and examined daily in fine weather, in marching order. In April and May, by short marches, and frequent halts of two and three days, they might join their regiment; the same care being taken of them as to a meal of some kind in the morning, when possible. They would now have had a six months' trial, and would be better able to support the privations and hardships they must experience during the campaign. In October their clothing should be completed, the days then being frequently hot and dry, the nights cold and damp; from the influence of which they should be carefully guarded. If this or some other cautious method were adopted, I think the health of the army would be much improved, and very many lives saved. In the instance of the seventh regiment, I have little doubt one half, or perhaps 200 of the original number, would have been effective under the plan proposed, instead of forty-two, the number now present with the regiment.

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* Tents were subsequently supplied.

The climate of Portugal is too much valued in England for qualities it does not possess: indeed, it appears to have been little known beyond the neighbourhood of Lisbon, until within these few years. The advantages generally enumerated are taken from the vicinity of the capital, and these are very much overrated. The whole of the east of Portugal, and the parts occupied by the British army north of the Tagus, are more unhealthy than any part of England. In July, August, and September, this occurs from the intense heat, and the evaporation and the decomposition of vegetable matter in the marshy grounds and courses of rivers: in November, December, January, February, and March, from the heavy rains, cold winds, and frequent changes of weather, which are particularly felt from the houses in general, and especially on the frontier, being badly built, possessing neither chimneys nor windows, by the aid of which an equal degree of temperature might be supported. The unhealthiness of September and October is proverbial in Estremadura. April is very changeable: so that, in fact, May and June are the only favorable months for invalids; and the latter month is frequently very hot. Upon the whole, the climate of this part of Portugal is almost always unfavorable for the reestablishment of health after fevers; is particularly so after chronic or visceral diseases; and, from its frequent and great vicissitudes of weather for six months in the year, with the impossibility of counteracting them by artificial means, is adverse to pulmonic and rheumatic complaints.

Neither phthisis nor scrofula are prevailing diseases in Portugal, particularly in the neighbourhood of Lisbon. Cases of both do occasionally occur, but they are by no means so frequent as to render them more than accidental, which shows the little predisposition of the Portugueze for them. They are, however, during the great heat in summer, liable to hæmoptysis, under any violent exertion, but which is usually subdued by mild treatment, and the proper functions of the lungs restored without much difficulty. The constitution and mode of living of the Portugueze do not dispose them to suffer from inflammatory diseases; and the greater clearness of the atmosphere, and the equality of the seasons, together with the want of tone of the whole system, render inflammatory affections of the lungs less violent, and more easily cured, than in England. There is also little or no hereditary predisposition for pulmonary disease among them.

From such information as I can collect from my acquaintances in civil life, as well as from my own observation, it would appear that persons visiting Portugal from colder climates, with only a predisposition for phthisis, or with tubercles in a nearly quiescent state, or not in that of suppuration, do receive some benefit from the sea voyage and change of air; but, when suppuration and ulceration have taken place, which is the case in most persons sent from England, the result is almost always fatal in as short a time as if the experiment of change of climate had not been tried. I now know several cases deteriorating as fast, during the last two months, as I conceive they would have done, with due caution, at home. Chronic coughs are always benefited by a residence in this country.

PUERPERAL FEVERS.

Observations on the Puerperal Fevers which occurred at the Maternité of Paris in 1829*; on the various Modes of Treatment that were adopted, and particularly on Mercurials, Emetics, and Bloodletting.* By M. TONNELLE. (Second Article.)

CASE VII. ***Puerperal Fever, with Peritonitis and Uterine Phlebitis; Gangrene of the Lungs; Softening of the Mucous Membrane of the Stomach; Abscess in the Leg.***

MARIE BAPT..., æt. twenty-three, of good health, complained, the second day after a favorable delivery, of acute pains in the hypogastrium and fever. Forty leeches were immediately applied to the part in pain, with great relief; but on the next day the pains returned, with copious diarrhœa and frequent vomiting. Lochia suppressed, and the breasts flaccid. Sixty leeches were now applied to the abdomen, and forty more in the evening.

Third day. Lochial discharge returned, and the patient no longer suffering.

Fourth day. She was restless, and frequently fainted.

Fifth. Delirium, and complains of pain in the leg, which was swollen on the anterior part.

Sixth. She expectorated some fetid sanguineous matter; stools were passed involuntarily; she sank into a state of insensibility, and died the following day.

From the third day, two ounces of mercurial ointment had been rubbed in every twenty-four hours.

Dissection. In the abdominal cavity there was a considerable quantity of puriform serum, mingled with false membranes. Cervix uteri and ligamenta lata infiltrated with pus, and most of the uterine veins were filled with the same liquid. Extremity of the fallopian tubes thickened; ovaria swollen and softened. In the centre of the right lung there was a gangrenous cavity, about three or four inches in extent, which was half filled with black and fetid shreds, and a thick matter of the same colour and appearance. The mucous membrane of the stomach was softened in a great part of its extent, and entirely destroyed around the cardiac orifice. Upon the surface of the colon were some spots of ulceration. There was also a peculiar suppuration in the leg. The deep-seated muscles were infiltrated and soaked through with pus, for the space of three or four inches. Around this deposition of matter, and in various parts of the leg there were several small collections of matter, which appeared to be formed in the middle of the muscles. The muscles, however, retained their natural colour: the interstitial and subcutaneous cellular tissue neither presented that redness or serous infiltration which usually accompanies deep-seated inflammations.

In this case, as in the preceding,* the various morbid appearances that were detected could only be attributed to the influence of some general cause, which gave rise to the whole. The number of the lesions, their rapid and insidious progress, and their destructive nature give to them a peculiar character, which is not presented by the ordinary forms of inflammation; but which may be explained by the deleterious influence of vitiated blood upon all the organs. The suppuration in the muscles of the leg deserves particular attention; and, for the purpose of illustrating more clearly these kind of abscesses, we shall record a few other facts.

CASE VIII. *Puerperal Fever, with Uterine Phlebitis; Purulent Collections in the Psoæ, Iliac, and Triceps, &c. Muscles.*

G. . . ., æt. thirty-seven, of good constitution, was attacked, on the third day after a favorable labour, with all the symptoms of intense puerperal fever. By a free use of leeches, the disease was much relieved towards the eighth day. The febrile symptoms and pains in the abdomen then returned with great severity. The patient soon became agitated and delirious. A state of profound coma succeeded, which was occasionally interrupted by cries and moans. She died on the fifth day of the relapse.

Mercurial frictions in large quantities, calomel, and mercurial clysters, were the means employed during the latter period of the disease.

Dissection, twenty-four hours post mortem. In addition to the ordinary appearances of intense uterine phlebitis which extended through all the veins of the organ, the following alterations were observed: The psoæ muscles of both sides contained several large purulent collections: the matter was situated in the centre of the muscles, in well circumscribed deposits. The fleshy fibres in contact with the pus were of a greyish colour, and softened; but beyond this they presented their natural colour and consistence. There were several similar deposits of matter in the right iliac muscle, and one of a smaller size in the substance of the triceps of the thigh. The brain and every other part healthy.

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* Vide our Number for July, p. 19.

CASE IX. *Puerperal Fever, with Uterine Phlebitis. Abscesses in the Muscles of the Legs, Thigh, Forearm, and Knee-joint.*

E. Hain. . ., æt. twenty-three, delicate and nervous, was attacked with puerperal fever the fourth day after her first labour. An emetic of ipecacuanha, and fifty leeches to the hypogastric region, quickly dispelled the symptoms; but, on the fourteenth day, the patient, who was already convalescent, felt very great anxiety, the cause of which could not be ascertained.

Fifteenth day. Violent fever, frequent vomiting, deep-seated and intense pain in the left hypogastric and iliac regions. Forty leeches were applied with decided, although but temporary, benefit. A series of severe symptoms quickly arose: Slight delirium, a stupid and intoxicated look, occasional agitation, tongue clean, small and frequent pulse, copious and fetid diarrhœa, deep-seated pain in the hypogastric region, and nausea.

Towards the end of the attack, she complained of pain in the legs and forearms, and, although there was neither external redness, shining of the integuments, nor swelling of the soft parts, M. DESORMEAUX predicated the existence of purulent collections in the substance of the muscles. The patient soon died, and his opinion was verified upon dissection.

Thick well-formed pus was infiltrated in the substance of the deep-seated muscles of both legs. The muscular fibres in contact with the matter were grey and soft, but immediately beyond they suddenly appeared of their natural colour and consistence.... Several small, isolated, and well-circumscribed collections, about the size of an almond, were seen in the solar and anterior tibial muscles, and in the middle of the thigh. Precisely the same appearances were detected in the forearm. In the left knee-joint there was also a certain quantity of well-formed pus. The synovial membrane retained its natural delicacy of structure, as well as its polish and transparency. The veins of the uterus were filled with thick laudable pus; their internal membrane was of a greyish colour, rugged and unequal. The left ovarium was converted into a cavity, half filled with pus, which adhered to the rectum, and opened into the intestine. Peritoneum natural. Several red spots were seen on the stomach. Other parts healthy.

The TENTH CASE was one of puerperal fever, with suppuration in the veins and lymphatics of the uterus. There were numerous abscesses in the muscles, and a collection of matter in the knee-joint.

Cases of this kind are by no means rare, and some examples are contained in the works of Leake, Doublet, &c. Many are recorded in recent theses, and in the memoir by M. Dance. M. Desormeaux witnessed many instances of this sort. It is evident that the purulent collections above described differ essentially from ordinary abscesses. The latter but rarely occupy the substance of muscles: they are situated in the cellular intervals which separate the muscles or their different fasciculi; or around the bones, or in the subcutaneous cellular tissue, &c. They form in a more or less rapid manner, but always gradually and regularly. They are usually accompanied by violent pain, and even in the deepest-seated phlegmons the integuments are of a purplish colour, or are tense and shining. Common inflammation is not confined to precise and well-defined limits, so as to form exactly circumscribed collections of matter, like those above described: it is generally diffused, and not equally violent in all the parts it occupies. In every case it disappears insensibly by a sort of gradual union with the surrounding parts. The purulent collections which existed in the preceding cases constantly occupied the centre of the muscles, and not their cellular intervals. This fact we shall afterwards endeavour to explain.

The accompanying pain was not severe, and such as the mechanical distention of the parts would account for. Neither the aspect nor colour of the integuments were altered: the muscles, indeed, were softened, but only where they were steeped in matter; beyond this point they had a natural appearance. Frequently, indeed, pus was seen in small insulated collections in the midst of muscles which appeared perfectly healthy. The number of these purulent deposits, and the rapidity of their formation in different and distant parts, are also remarkable. Do we ever see common inflammation thus occupy many different points, in each of the same violence, and terminating every where in the same manner? If, at the same time, there exists in the economy a general, manifest, and even palpable cause, which will explain all these various effects; if we detect pus in the uterine vessels, from whence it is conveyed through all the circulating channels with the blood which serves as its vehicle; if characteristic symptoms show, almost to a certainty, that pus has been conveyed to the various organs; and if these symptoms constantly precede, and enable us to foretel the developement of the abscesses in question, we have surely sufficient grounds for believing that the purulent collections of the lungs, liver, brain, &c. observed in such cases, are not the effects of ordinary inflammation, but the result of a peculiar process, or a simple deposit of matter in the substance of the muscular tissue.

It may possibly be objected that this hypothesis, however admissible it may be as far as regards the lungs and liver, which are the principal centres of the venous circulation, cannot apply to the muscles, which receive but a limited supply of blood. But there are many veins distributed to these organs; and, besides, experiments have been made which strengthen the above supposition. M. Cruveilhier injected mercury into the veins of animals, and found it extravasated in the muscles, as well as in the principal viscera. In some of the above cases, indeed, the purulent deposits were confined to the muscles, while there were no traces of such appearances in any other part of the body. For an answer to this objection, we must again refer to M. Cruveilhier. "I have frequently," says he, "seen the mercury traverse the capillary system of the lungs, and fix itself especially in the substance of muscles and in the serous cavities. It may be difficult to explain these different phenomena, but the facts are undoubted, and to them speculation must yield. It appears, then, rational to admit that these purulent collections in the muscles and articulations, which are so often connected with phlebitis, are the direct and immediate effect of an absorption of matter, and of its mixture with the blood. We may conceive them to arise in the following manner.

Sometimes a certain number of purulent particles being fixed in the substance of the muscles, or deposed upon the surface of serous membranes, produce inflammatory action, and become the centre of a circumscribed inflammation, which terminates rapidly in suppuration: in this manner the globules of mercury acted in the experiments we have just referred to. Sometimes, on the contrary, the pus appears to be deposited in the muscles without any local process. Although it may be difficult to admit this fact, it appears almost impossible to explain in any other manner the formation of some of the small isolated depositions of pus, which were detected in the substance of muscles in other respects healthy, and particularly those purulent collections which M. Desormeaux has sometimes seen form immediately under the skin with the greatest rapidity, and without the least appearance of any inflammatory process.

It is objected that the laws of physiology are in direct opposition to such facts; but it is forgotten that the act of nutrition itself is but the result of a similar deposition, which differs only by its constancy and regularity. If the vessels constantly deposit in different organs certain particles which are destined to repair their tissue, why should they not, in the same manner, unload themselves of any heterogeneous principles they may contain.

In all the preceding cases, the typhoid symptoms, the invariable effect of uterine phlebitis and the absorption of pus, terminated rapidly in the death of the patient. Such is not always the case. Frequently the disease is less severe, and gradually disappears under judicious treatment, and perfect health is restored.* It is a fact which may be deduced from all the previous cases, that the second period of uterine phlebitis is in fact typhous fever. It has been proved, indeed, by the experiments of Gaspard, Dupuy, &c. that all the symptoms of typhous fever may be produced at will, by injecting pus or putrid matter into the veins of animals. The typhoid fevers which occur after labour do not always depend upon the same cause: the disease is sometimes primarily developed after labour, and neither the symptoms observed during life nor the dissection after death shows any evidence of uterine phlebitis, inflammation of the womb, or any other morbid alteration.

CASE XIII. *Primary Typhoid Fever after difficult Labour, with abundant Hemorrhage.*

Garn..., æt. thirty, of good health, entered the Maternité, the 2d of August, 1819, and was delivered some days afterwards of her first child. The labour was long and very painful. From inertia of the uterus, the delivery was accomplished by the forceps. Profuse hemorrhage followed, which was arrested with difficulty by injections and cold applications. On the following day the lochial discharge was abundant. The patient was pale and much exhausted: she complained of deep-seated pain in the hypogastric region, and it was supposed that inflammation of the womb was arising. M. Desormeaux ordered fifty leeches to the abdomen, and a hip bath.

Third day. Fever, heat, and thirst. Lochia continued; no pain in the abdomen.

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* M. Tonnellé here details two cases, both of which he presumes were instances of uterine phlebitis followed by typhous fever. The patients recovered. As the proof of their pathological character appears very unsatisfactory, we have not translated his report of them.—ED.

Fifth day. Large sloughs were found on the labia; diarrhœa; patient much depressed.

Eighth day. Great agitation; delirium; involuntary discharge of fetid stools. Tongue dry; pulse quick and irregular. The features and general aspect of the patient expressed a state of profound prostration.

On the eleventh day, she died.

The treatment consisted at first of rice drink; and subsequently decoction of bark; and pills of extract of bark and camphor were given.

Dissection, thirty hours after death. The body was already partially decomposed. The labiæ were converted into a thick deep slough. Uterus large, and its tissue flaccid, but perfectly healthy, as well as its vessels. Stomach and intestines perfectly white, without any alteration of their substance or consistence. The Peyerian glands were scarcely perceptible. Lungs gorged with blood; heart soft and shrunk, its cavities filled with fluid blood. Brain very soft and pale. Every other part was healthy.

CASE XIV. *Typhoid Fever after Labour. Gangrenous diathesis; disorganization of the stomach.*

Berge..., ætat. twenty-four, of a nervous and irritable constitution, suffered, at the commencement of her first pregnancy, from vomiting and pains in the stomach. She was bled, and leeches were frequently applied. At the third month of pregnancy, she was attacked with an inflammatory swelling of the knee, and was admitted into the Hôtel Dieu. In five months she was discharged nearly cured, but much exhausted by severe suffering, debilitating treatment, and her long residence in the hospital. She soon entered the Maternité, and passed through her labour very favorably. Eight days after, she was attacked with fever and diarrhœa. The tongue soon became dry, and was covered with a thick brown coat; features much altered, mind confused. There were soon constant delirium, a wild look, trembling of the limbs, involuntary stools; small, quick, and irregular pulse. At the same time large and deep sloughs formed upon various parts of the body, upon nearly the whole of the breasts, the sacrum, the fore part of the thighs, and both heels. Towards the close of her existence, there were nausea, feeble attempts to cough, and profuse viscid sweats. She died on the tenth day of the disease, after a long and painful agony.

Acidulated drinks, extract of bark with aromatics, blisters to the legs, which were dressed with powder of bark and spirits of camphor, constituted the treatment.

Dissection, twenty hours post mortem. Nearly the whole surface of the breasts and sacrum were in a state of slough. The labia, or great part of the integuments of the thigh, and both heels, were in a similar condition. The stomach had a large opening upon the cardiac extremity: the edges of this orifice were soft and fringy, and of a blackish colour, which was gradually lost in the white tint of the other parts of the organ. There was no trace of inflammation, either around the perforation or in any other portion of the stomach. Peritoneum, uterus, and its appendages, perfectly healthy. Every other part was examined, but there was no alteration of consequence detected.

These two last cases were different in form, but essentially the same. Both of them were examples of very strongly marked and severe typhoid fever; but if they are compared with the previous cases, we shall immediately be struck with a very important distinction. In the latter, the typhoid affection was consecutive to suppuration of the uterus or its vessels, and to the transport of pus into the circulating channels. In the instances just related, on the contrary, the typhoid disease was developed primarily and independently of any appreciable alteration. The progress of the symptoms, and the state of the organs, can leave no doubt upon this subject. The first of the two last-named patients experienced, it is true, the day after her labour, some pain in the epigastrium; but these pains gradually decreased, and they had no influence on the pulse, which remained undisturbed, nor on the lochial discharge, so that they could only with reason be attributed to fatigue of the uterus, the consequence of a long and difficult labour, and the use of the forceps. In the case of the other woman, there was no abdominal pain, and it was, besides, at the very commencement that all the typhoid symptoms occurred. Lastly, in both these instances, the most careful dissection detected no morbid appearances, either in the peritoneum, uterus, or its appendages. The state of these organs corresponded, therefore, with the progress of the symptoms.

There can be no doubt that many of the cases of "putrid puerperal fever" related by different writers, were instances of uterine phlebitis, although the nature of the malady was not known; but we must also remember that many cases of the disease are primitive affections, very nearly similar to the last we have related. It is a question worth examining, whether the developement of such diseases is connected directly and immediately with the puerperal state, or whether they are fortuitous and purely accidental. It is certain that the ancients attributed more influence to the puerperal state than it really possesses. They were struck with the undeniable peculiarity of this condition of the female, and they fancied that every disease which arose after labour, was specially influenced by it: the term puerperal was therefore applied indiscriminately to a variety of very dissimilar maladies; and, as happens in the present day with respect to inflammation, from generalizing too much, confusion and uncertainty were produced. More recently, the investigations of Pinel and Bichat, and different physicians of our own day, by limiting the term puerperal fever to inflammation of the peritoneum and uterus, have excluded many different affections that were formerly included in it. Although parturition is a natural act, it cannot be denied that, even in the most simple cases, it makes a violent impression upon the whole economy, and gives a general shock, from which arise some of the features of typhoid fever. "The pains of labour," says Desormeaux, "powerfully affect the nervous system, and produce considerable excitement. . . . The pulse becomes hard and frequent, the heat of the body is increased, the face is flushed, the lips and tongue are dry; there is, in fact, a universal and great agitation. . . . At a later period the agitation is still greater; the parturient efforts are accompanied by convulsive trembling, and sometimes, even in ordinary cases, the intellectual functions are disturbed."

This temporary disturbance can no more be regarded as a pathologic condition, than that which arises from passion or from any excessive mental emotion. But, if this violent process of pain is to be supported by a woman who is already weakened by disease, low diet, or the air of an hospital; or if it be prolonged much beyond its natural duration, and abundant hemorrhage should occur, and increase the exhaustion produced by the pains of labour, as was the case in the two last-related instances, we think that these united causes will be sufficient to explain the developement of typhoid fever." When a laborious or preternatural labour, says Dr. West, has been too long procrastinated, and the power of the uterus is destroyed by useless efforts, and its parietes weakened and contused, we observe rather the indicative signs of death, than the symptoms of a disease: the eye is dull and dry, the features are altered, voice extinct, skin of a leaden hue, and covered with cold sweat; the pulse is very feeble; the pains soon cease; the excitability of the patient is exhausted; the intellectual faculties are disturbed; a paroxysm of fever sometimes succeeds the cold sweats, and death follows in twenty-four or forty-eight hours."

We have in this sketch the characters of typhoid fever in its highest degree, and the correlation between the symptoms and the process of labour is evident.

Were we to extend the argument beyond the circle of puerperal diseases, we could easily support our opinion by a multitude of analogous facts. The suffering from surgical operations or extensive burns is sometimes followed, like that of labour, by typhoid symptoms. But we can only hint at these analogies, without, upon the present occasion, entering more at length into their consideration.

(To be continued.)

INSANITY.

On the Mental Origin of Insanity. By ALEXANDER THOMSON, M.B.

The Primary and Universal Mental Cause.

As we cannot compare more than two propositions at once, it follows that, unless the judgment upon these be accurate, (that is, be formed with a reference to all the possible relations of the two propositions,) any new judgment, resulting from a comparison in which the prior judgment forms one of the terms, will necessarily be *inaccurate.* Thus, supposing x to be the judgment, which is the result of a comparison of a with b, while the *accurate* judgment, or the conclusion to be arrived at, by all persons properly qualified for the examination, after a careful investigation, is x': it is easily to be comprehended that X, the result derived from the x compared with some other term z, will still partake of the original deviation from accuracy, however minute be the difference between x and x', the true or accurate result.

By a similar mode of reasoning, we may conceive how all propositions to be deduced directly from X, or from any proposition into the formation of which X has, either directly or indirectly, entered, will partake of the original or first error. But all our knowledge is founded upon sets of propositions compared by twos, so that every error, however small, in more comparisons than one, will combine to throw a cumulative cloud of error over the final conclusions which form, as we all know, the standards by which we measure the value of our acts; or, in common, the principles upon which we act, or the motives which govern us in our selection between every two modes of action presented for our choice or adoption.

Where such errors occur in only one or two of the comparisons furnishing the conclusions which form our knowledge, the deviations from the ordinary results obtained by others thence produced not being very great, the party is called *eccentric* or *peculiar*. When they are more numerous, the individual being bewildered between which of his conclusions may be accurate, and therefore depended on, and which may not be so, and being still induced to place implicit confidence on all his conclusions, reasons and acts apparently in so anomalous, abnormal, or untraceable a manner, that he obtains the epithet of *silly* or *foolish*. If, in addition to this folly, he be so conceited, so satisfied of having himself taken into consideration all the circumstances necessary to determine a strictly accurate result, that he will not condescend to reanalyze any conclusion at which he has arrived, however much that conclusion may differ from that arrived at by others, he is then justly styled *mad*.

That in this manner a man may reason inaccurately, that is, in a way in which no other man will, if capable of making and striving to be accurate in an investigation, from accurate premises, or from the same propositions as are compared by others, is pretty evident. Thus, supposing (*a*) and (*b*) are to be compared, and that, in order to arrive at the conclusion *x*, it will be necessary to consider five qualities of (*a*); if any circumstance prevent us considering more than four of these, our conclusion may be perfectly accurate for the qualities considered, but will certainly not correspond with the conclusion (judgment) of the person who has duly weighed the five qualities in question. If the mind of one individual were similar in all respects to that of others, it is probable that he would have instituted and followed up a similar series of comparisons, and therefore would have taken duly into consideration all the five qualities required to be examined. But variety of education, variety of temporary circumstances, whether these be mental or corporeal, may obscure, in the mind of the individual comparing, the necessity for the examination of the fifth circumstance, nay, even prevent him from being aware of the existence of the same, and yet he be as sane, as *compos mentis*, as any person in the world; and, as it appears that this may happen in the conducting of one series of comparisons, so it may evidently happen once or oftener in one or more of the series of comparisons, or, to use more ordinary language, in one or more of the chains of reasoning, or the processes of investigation, the conclusions or judgments derived from which form the principles of our knowledge or of our motives. Hence, even in minds which will readily be acknowledged to be sane, such omissions, unavoidable on the part of the comparer, may, as we have already seen, lead to deviations of principle, so widely deviating from the conclusions of other men, or of men in general, that they can be styled *eccentric*, or the *result of temporary insanity*. Here, then, we have *accurate reasoning* (in the ordinary acceptation of the term,) on *false premises*, that is, on premises not the same as those used by others in investigating the same question, though, as has been shown, perfectly accurate as far as regards the individual, who is, unfortunately for himself, placed under the influence of the modifying circumstances. But *accurate reasoning from false premises* has been given as one of the definitions, one indeed which has been pretty generally received as accurate, of *insanity*. It appears, however, that such a mode of reasoning may arise from circumstances totally independent of the mind in which it passes, even while that mind will be acknowledged to be perfectly sound. It follows, then, that this is not an accurate definition of insanity, that is, of a state of mind inconsistent with health or integrity, and even to those adopting it as accurate, that insanity may arise independently of the brain, although, indeed, disease of the percipient organs may be one of the modifying circumstances which induce the omission of certain considerations or links in a chain of reasoning.

That definition of insanity which makes it to consist in *false reasoning from accurate premises*, is equally untenable: for, if a and b are to be compared, and to obtain the result supposed correct, namely x, a and b may be the whole of the premises, yet, in reasoning or comparing, the whole of their relations may not be taken into account, or the whole value may not be given to any single relation in some one or more of the series of comparisons. But such an omission may equally arise from circumstances over which the mind of the comparer had no possible control, and indeed resolves itself into an omission similar in its origin to the one already considered. It would be, indeed, absurd to deny that imperfections in the nervous system may give rise both to accurate reasoning from false premises, and to false reasoning from accurate premises. But surely it is fair to deduce from the preceding investigation, that these errors of the mind may also take place independently of disease, either mental or corporeal.

It may be urged, however, that accumulations of erroneous conclusions, while they may lead in one or two instances to eccentric, or even inexplicable acts, will not certainly long continue to do so; inasmuch as the commission of any such act, meeting with reprehension from those whom it may influence, will itself induce the perpetrator, on reflection, to reexamine the nature of the reasoning upon which the determination to perform it was founded. But to this I have to answer, that the majority of mankind do not analyse or reflect upon the mode of action of their own minds; that thence they are not aware of the great deviation, in principle or in conduct, that may arise from a very slight omission in reasoning, and consequently are habituated to place implicit reliance not only upon the accuracy of the impression conveyed by the senses, but also upon the necessary truth of the conclusions drawn from a comparison of these. Men, in general, therefore, not only treat with contempt any proposal to reinvestigate the origin of their principles, but also with indifference, as it would necessarily lead them into much laborious investigation, in a path to which they are by no means used, and to which they are on that account naturally disinclined. In nine cases out of ten, therefore, an erroneous act is referred to some unknown source, as to a want of consideration, to the result of passion, or to an impulse over which the individual has no control, to some error in the constitution of the individual's mind, to some sinful tendency produced by the deduction of the race from Adam, to the agency of some evil spirit, operating by a strong and irresistible temptation. It is most worthy of remark that, in all these ascribed origins of an erroneous act, there is one common feature, viz. that the origin of the act was out of the power, out of the influence of the consideration of the individual perpetrating the act. If, then, I propose to consider these acts as arising from conclusions stored in the form of principles, or leading-strings for action, in the mind, wrong, because formed without a due reference to all the circumstances from which they are deduced by other men, and yet formed, with every wish on the part of the examiner to arrive at truth, what more do I call upon these men to believe than is found in their own creed? All I ask is, that, in forming these principles, they shall grant me that they are right as far as the power of the individual to investigate goes, but wrong, because he is prevented by circumstances over which at the moment he has no control, from taking into consideration all the circumstances which might have altered and modified his conclusion.

It is true that we apply our origin of error at different points: they immediately preceding the committal of an act; I, in some anterior point of the series of comparisons from which the principle guiding his selection has been deduced. Yet, even in my way of regarding this origin, the very last comparison in the series may be the origin of the wrong conclusion. The actor must always, preceding his act, compare the value of two modes of conducting himself, either of remaining inactive or of proceeding to action: and, in his selection between these two modes, he must be guided by the agreement of one, or rather by his fancying an agreement of one of them with the object which he has mediately or immediately in view. This fancied agreement implies a standard or previous conclusion, with which the two alternatives or their tendencies may agree; and thence the error may be either in the formation of this standard, or in the omission of some considerations which might make the one agree more certainly than the other with such standard.

From such observations we see how easily an error may be overlooked, how great may be the influence even of a trifling omission on the ultimate tendency of our actions. When these errors have become numerous, when they have turned awry so many of the acts of an individual, that his friends are induced to suppose something wrong: they treat him with caution and reserve, limit their former confidence, recommend him means for improving his health, (though the person himself does not even suspect it to be destroyed,) endeavour to make him believe that he is labouring under false impressions, that he reasons falsely or too subtilely, in fine, that he is no longer fitted for society. The friendship which formerly stimulated him to exertion is gone; and the eye which met his with kindness, with confidence, and with love, is averted. He in vain turns to his own heart to look for the causes of the change, and he feels dreadfully humbled and oppressed by being left as an alien upon the world, to gain his pleasure from the resources of his own mind, to soothe his pain as best he may in solitude, and sunk beneath what he believes the galling finger of scorn. Is it surprising that, under such circumstances, the man turns upon himself for an investigation of his own acts and motives, and that, tracing no immediate, or to him recognizable, error in the conclusions at which he has previously arrived, trusts with confidence his reasoning powers and his senses, which he has never yet taught himself to doubt, that he still further concludes his friends to be capricious and unjust, and in his turn acts towards them with suspicion, distrust, and cunning, or with anger, malevolence, and revenge, according to the previous turn of his moral and intellectual education.

Is it to be wondered if, between this struggle of indifference to life and the necessity of living; if, in contrasting the difference between the present and the former state; if, in contemplating the supposed hollowness of human affection, the balance of the circulation, which was kept up by a judicious regularity of habits induced by a regard to the opinion of society and of friends, be destroyed, and disease, slow and lingering disease, unalleviated by hope, and stimulated by despair, take possession of the frame. The body may now, and does, become as irritable as the mind; the eye, which was fixed in deep thought, becomes glassed by blood, which is irregularly sent to the tired, worn out, and agitated sensorium; and the whole system or being is placed in circumstances which tend not only to perpetuate his former errors, but to prevent him still more from taking into consideration all the circumstances necessary to determine his acts. The blood, sent by the increased impulse of the stimulated heart, rushes, as in the man under the influence of wine or other great stimuli, through the brain, bringing rapidly and unconnectedly before him various past scenes and impressions, which so occupy and fill his mind as to prevent the remembrance of his usual principles, or standards of action, being brought under his consideration. While in this state, should some unfortunate circumstances accidentally occur to rouse and excite his attention, he acts upon the impulse of the moment, without appealing to the ordinary standards of his actions, which are obscured by his fever, and he performs acts which himself will be the foremost to condemn when he is calmed by the exhaustion consequent upon the agitation. The violence of his acts will be in proportion to the degree of his agitation.

It appears from what has been said, that insanity is by no means necessarily dependent upon disease of, or even upon irregularity in the circulation of the brain itself, while there can be little or no doubt that either of these may be one of the circumstances which prevents the investigating power from being used to their utmost extent. Indeed, notwithstanding the zeal and ardour with which some respectable men have sought for indications of disease in the brains of persons considered insane, in many instances they have found none; and, where they have been fortunate enough to find them, they have not in any two cases been the same; and it is most undoubtedly true that every indication yet found has been met with in the brains of those who have died without ever having been considered insane, without ever having given, at least, any demonstrations of insanity.

PERITONITIS.

Cases of Peritonitis; with Remarks. By HUGH L. HODGE, M.D. one of the Physicians of the Almshouse Infirmary.*

MORBID anatomy has greatly illustrated pathology: it has several times brought to light extensive consequences of a disease, whose existence even had not been previously suspected, and has often demonstrated the frequency of a complaint which had been thought very rare. Peritonitis has been detected in many cases by the knife of the anatomist, where its occurrence had escaped the suspicions of the mere practitioner, and is now therefore regarded as a more frequent complaint than had hitherto been supposed. Many individuals have no doubt perished from this and other inflammatory affections, whose death has been attributed to debility.

These errors arise from an imperfect diagnosis. There are no symptoms peculiar to either acute or chronic inflammation of the peritoneum, and, as the physician must form his opinion from the group of symptoms presented, so he is liable to be deceived even in the acute forms of the affection. Thus, Dr. CHAPMAN has informed me that two of our most observant and experienced physicians for a long time attended a lad for peritoneal inflammation, whose body after death presented no evidences of such an affection; the pleura and lungs having been the seat of irritation and disease. I have met with several severe cases of apparent peritonitis, with swelling, tension, and pain of the abdomen, decubitus on the back, dread of the least pressure, even from the bedclothes, which proved to be a rheumatic affection of the integuments. On the contrary, when peritonitis has actually existed, the symptoms have sometimes been so obscure or complicated as to cause it to be mistaken for colic, diarrhœa, dysentery, enteritis, &c. In chronic peritonitis the signs are still more deceptive. I have been called in consultation by a respectable physician to a case of this character, which had been for months treated as ascites; and in this and many other cases dissection has revealed the most extensive inflammation of the peritoneum, with sero-purulent effusions, and universal adhesion of opposing surfaces, where no suspicion of the disease had existed during life. The reverse I have also found to be true: that the practitioner who, during life, has suspected, from the peculiar combination of symptoms, a chronic inflammation of the abdominal cavity, has in vain searched for the consequences of such inflammation after death. "A very obscure variety of peritonitis is one which is only indicated by a tumefaction of the abdomen, joined to habitual constipation and to sensibility without fluctuation. A more obscure degree is that in which there is swelling, with only occasional constipation; and, finally, peritonitis has been announced merely by a simple tumefaction *(ballonement)* of the belly."* It is needless to observe how wholly insufficient are such symptoms to identify the nature or seat of an abdominal disease.

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* North American Med. and Surg. Journal.

There is still another source of deception respecting the diagnosis of peritonitis, arising from its not unfrequent complication with inflammation of the mucous membrane of the bowels, particularly of the large intestines. At our infirmary I have met with several cases in which the acute form of peritonitis has suddenly supervened on chronic inflammation and ulceration of the intestines. Such cases are exceedingly distressing, from the agony to which the patient has been usually subjected, and, proving speedily fatal, have afforded the opportunity by dissection for understanding the true condition of the tissues involved. In other instances the phlogosis of the serous membrane has been the primary disease, while the affection of the mucous tissue has accidentally supervened. But, in chronic affections of these membranes, whether resulting from a common cause or as consequents the one of the other, I should say, from the observations I have made, that the symptoms of enteritic disease are alone prominent; those of the peritoneal affection seldom attract attention, while the former is comparatively a manageable disease, and the latter, in its confirmed state, is almost incurable. "Peritonitis, whether acute or chronic, particularly the latter, is of all complaints the most fatal."* In treating, therefore abdominal inflammations, it becomes necessary to ascertain, if possible, all the tissues which are involved; for it may happen, as will be presently exemplified, that the inflammation of one tissue may be subdued, while that of another may destroy the patient. If the diagnosis be difficult, and the disease usually fatal, greater attention to minutiæ is required, that, by an early detection, the proper time for the successful employment of our powerful therapeutical agents may not be irremediably lost. Inflammation should be considered as a curable disease, and however difficult its management may be rendered from the circumstances of the case, the scientific physician should not despair in his attempts to discover its insidious approaches or to arrest its progress.

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* Dict. abrégé des Sciences Médicales. Art. Peritonite.

In confirmation of some of these remarks, I shall adduce two cases very analogous to each other; one of which I have the pleasure of presenting in detail, the account having been drawn up by Dr. NOTT, house physician to the infirmary during my superintendence, from notes taken at the bedside of our patient. One or both cases would appear to confirm some important facts in the history of peritonitis, and to afford matter for reflection.

1. That peritoneal inflammation may exist unsuspected: there is reason to believe that, in both the following cases, this inflammation had preceded the mucous affection, which last first induced the patients to apply for relief.
2. That severe and dangerous inflammation in the mucous and serous tissues of the intestines may coexist.
3. That enteritic tympanitis is intimately associated with, if not a necessary attendant on, peritonitis: it forms a very important diagnostic mark.
4. That suppuration may occur on a serous surface without ulceration; the pus having a "laudable" character.
5. That the pus may in these serous tissues be circumscribed by adhesions, and the abscess thus formed may, as in ordinary cases, advance by progressive absorption to the surface of the body, or open into an adjoining intestine.
6. That ulceration may commence originally in a serous tissue; a point doubted by some pathologists.
7. That the peritoneal inflammation may continue its ravages, while the mucous inflammation may be arrested, or

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* Op. cit. p. 468.

even subdued; and this without any very positive indications.

8. That the sympathies are so little excited in chronic peritonitis, that the inflammation may pass through its different stages, so that gangrene may result before the patient is destroyed.

9. That, in a therapeutical point of view, the local application of cold promises to be useful as a palliative, if not as a permanent remedy. No measure was effectual in relieving the pain in Graham's case until cold was resorted to.

Case I. was that of a mulatto man, about thirty years of age, of a delicate constitution. He attributed his illness to exposure to wet and cold; and some days after the commencement of his complaint was brought to the infirmary. He then complained of the usual symptoms of dysentery. His abdomen being, however, enlarged (tympanitic) and painful, especially on pressure, the patient was treated by means of cathartics, anodynes, and demulcents: the symptoms greatly ameliorated, and he appeared convalescent. In this situation, contrary to advice, he left the infirmary, and returned to his usual mode of living. He, however, was in a few days readmitted into the institution, and again treated as suffering from dysentery. He complained of severe griping pains, irritation of the rectum, tenesmus, with frequent inclination to stool. The discharges per rectum were, however, peculiar; presenting the appearance of yeast in colour and consistence, as if a large quantity of sero-mucous fluid had been evacuated, without any admixture of bile or feces. The abdomen was tympanitic, and pain was excited by pressure. By the use of alteratives (calomel, ipecacuanha, and opium in combination,) and laxatives, assisted by cold affusions to the abdomen and blisters to the lower extremities, the symptoms of mucous irritation were again subdued. The stools became bilious and feculent, and there seemed to be no reason why the patient should not recover. He remained, however, weak and miserable, was much emaciated, without appetite; had a slight paroxysm of fever in the afternoon; the abdomen was tympanitic, but not painful, except when much pressure was made. In this state he continued, with little apparent alteration, for several days: his strength, however, gradually diminished, and he died.

On dissection, there were evidently some vestiges of mucous inflammation; but bilious feces were found in the intestines, and there was nothing in this tissue sufficient to account for the death of the patient. The peritoneal surface, however, was universally inflamed; lymphatic depositions connected all the viscera of the abdomen; while pure pus was found in circumscribed cavities among the convolutions of the intestines and the folds of the mesentery. In the latter situation a large abscess was formed. Several portions of the peritoneum were of a dark or livid colour, and easily torn, as if in a gangrenous condition.

CASE II. *as detailed by my friend,* Dr. NOTT. Edward Graham, an Irish labourer, ætat. thirty, of intemperate habits, was admitted on the 19th of June, 1828, with mania a potu threatening. Pulse at that time was a good deal excited, tongue a little furred, slight headach. Was ordered a dose of calomel and jalap, which he said purged him freely: after this he was sitting up, and was thought to be convalescent, until the evening of the 21st, when he was seized with sharp pains in the abdomen, and a frequent disposition to stool, without being able to evacuate any thing. Abdomen was a good deal swollen. These symptoms were attributed to some impropriety in diet, and, thinking the case nothing more than a common colic, without further examination Calomel gr. x., Pulv. Opii gr. i. were prescribed.

22d. He was a good deal better, but still complained of his abdomen, which, on examination, was found to be very tender and considerably swollen; pulse frequent, full, and soft; tongue more foul; skin rather warm and dry; bowels not opened by the last medicine.—Ordered cups to abdomen. Calomel gr. ii., Pulv. Opii gr. ss. M.; also common enema.

23d, eight o'clock A.M. No improvement; skin hot; face flushed; pulse frequent, open, with slight tension; tongue of a dirty cream colour, brownish and dry in centre, edges florid; abdomen still swollen and tender.—Ordered a scruple of Calomel, to be followed by Oil, till bowels are freely opened; sixty leeches to abdomen, and warm fomentations.

Three o'clock P.M. No relief: had two stools; pain in abdomen acute, (compared it to knives running through him;) pulse more tense; skin very hot.—Ordered venesection; bore only eight ounces, which was cupped and buffy. Enema and fomentations repeated.

Ten P.M. Better: has been perspiring freely; bowels well opened; stools copious, soft, feculent, and offensive;

pulse 104 and full; abdomen slightly relieved. Ordered sixty leeches and an enema of senna and salts. Fomentations continued.

24th, nine A.M. The injection given last night brought away four or five copious stools; feels considerably relieved this morning; pulse and skin nearly natural; tongue much the same. Diet gruel.

Three P.M. Not so well: pulse more frequent and tense; abdomen again quite tender. Ordered sixty leeches and fomentations.

Ten P.M. Considerably relieved: had several stools during the day.

25th, nine A.M. Improving: pulse pretty full; has a little tenderness of abdomen; tongue still foul. Calomel gr. x., Ext. Coloc. comp. gr. x. M.

Ten P.M. Medicine did not operate. Was ordered, during the afternoon, an injection, which opened his bowels several times. Tongue the same; pulse irritated.

26th. Appears to be a good deal better: tongue cleaner; has little tenderness remaining. Thinks himself well, and, contrary to advice, persists in leaving the house: he took his discharge and went out.

30th. Admitted again, after being out four days: most probably has been eating and drinking imprudently, although he denies it; has acute tenderness on right side of umbilicus; abdomen swollen, particularly at the part where the tenderness is seated;* pulse eighty-eight, small, and tense; tongue clean and florid at the edges; skin natural; has a cough; has had, since his discharge, frequent slimy stools, with griping. Ordered eighty leeches to pained spot.

July 1st. No better: abdomen very tender; tongue covered with a cream-coloured fur; skin cool; tormina and tenesmus, but no stools; pulse quick and tense. Calomel gr. x. to be followed by oil.

2d. Bowels were freely opened yesterday; pulse frequent, quick, and tense; skin not hot, but has a husky feel; appearance of tongue and tenderness of abdomen much the same. Ordered forty leeches and fomentations.

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* I would remark, that the general cavity of the abdomen was but slightly swelled in this case, but that an ovoid tumor formed below and to the right of the umbilicus, presenting to the eye the appearance of an abscess formed among the muscles, but, on examination by percussion and with the fingers, the swelling evidently depended on gas in the bowels. This tumor was the seat of the patient's severe sufferings; and, in my clinical remarks, I mentioned to the pupils in attendance that I considered it a case of peritonitis, in which adhesions had occurred, in all probability causing the accumulation of air, and that there was reason to suspect an abscess would form.

Evening. Not so well as in the morning: pulse 100, small, quick, and tense; skin hot; abdomen very tender. Ordered affusions of cold water on abdomen, and injections of cold water; heat of skin and pulse was reduced by the cold, and he felt better after it.

3d. Much the same this morning; had several watery stools during the night. Cold water continued. Ordered blisters to ankles, and Ipecac. gr. ¼ q. b. h.

4th. The blisters yesterday produced so much excitement that it was found necessary to remove them before they had fully drawn. Feels better this morning; pulse ninety-nine and quick; tongue the same; abdomen not near so painful to the touch, but is still protuberant; skin good; stools more consistent and natural.—Cold and ipecacuanha continued.

6th. Improving: little or no tenderness of abdomen remaining.—Treatment continued.

7th. The swelling of the abdomen is becoming conical in form, pointing near the umbilicus; has a tympanitic sound on percussion, and, when kneaded, the gurgling of air is heard in the intestine; pulse irritable.—Ordered a blister to the tumefied portion of the abdomen.

9th. Still complains of frequent inclination to stool: discharges very small and slimy.—Ordered Calomel gr. x.

Patient is becoming feeble: allowed milk and chicken water. Diet heretofore has consisted almost entirely of gruel and gum water.

20th. Has been lingering ever since the 9th without any material change in symptoms. Abdomen until yesterday remained tense and pointed. Dr. Hodge thinks that an abscess has formed in the peritoneum: two blisters have been applied successively, without any marked effect: pulse has continued irritable; febrile exacerbations in the evening; small and frequent evacuations from the bowels. Tonics, astringents, and opiates have been given without any advantage. Yesterday afternoon the tumor of the abdomen subsided: patient says that he had at the time a considerable discharge of fluid and flatus, but, as the stools had been thrown away by the nurse without examination, it could not be ascertained whether or not they contained pus. He is now taking porter and diet to support his strength: all the astringents have failed in checking his bowels; he is also using burnt brandy and galls.

27th. Although the swelling of abdomen subsided on the 19th, a circumscribed hardness remained, extending for several inches around the umbilicus. An opening formed yesterday at the umbilicus, through which during the day about a pint of pure pus was discharged, according to the account of the nurse and patient: the discharge is now trifling, and the patient would be pretty comfortable, if it were not for his diarrhœa and a cough, which increases with the debility. Ordered injections of Sulph. Zinci gr. x. in half a pint of water, to check bowels.

29th. Slept pretty well last night: cough getting worse, and expectoration more difficult, owing to increased debility. Hectic paroxysms followed by copious perspiration: discharge now about two or three ounces daily; had two or three stools during the last twelve hours. Ordered Elix. Vitr. gtt. x. t. in d.; wine whey, and volatile liniment to breast.

30th. Gradually sinking: discharge from umbilicus of a greenish hue, and very offensive: on pressure it comes out, mixed with air and the contents of the intestine. Treatment continued.

August 1st. Died.

Dissection. On opening the abdomen, appearances of extensive chronic peritoneal inflammation were seen. The peritoneum every where presented a leaden hue; pretty firm adhesions had formed between the folds of the intestines, between the omentum and intestines, and between the liver and peritoneum lining the diaphragm, &c. The omentum and small intestines, just behind the umbilicus, had become agglutinated, and were united at the distance of two or three inches around the umbilicus to the anterior parietes of the abdomen: a complete sac was thus formed, which contained pus and feculent matter: the abscess extended as far up as the liver, and had but two openings, one at the umbilicus, and another, about the size of a crow quill, into the small gut: the sac was so perfectly formed that no pus was found extravasated amongst the intestines around it. Five or six ulcers, about the size of a ten cent piece, were seen on the *external surface* of the small intestines, but *perforating only the peritoneal coat,* except the one communicating with the abscess: a little abscess was also found near the left groin, in the folds of the mesocolon, around which was poured out about a gill of pus. The mucous coat of the stomach showed some marks of chronic inflammation; that of the small intestines was perfectly healthy, showing the ulcers had commenced on the external or peritoneal surface.

The mucous membrane of the large intestine was extensively diseased; looked as if it had been corroded by strong acid, a great portion of it being removed by ulceration: it was of a light chocolate colour, and much thickened.

N.B. I think it most probable that the abscess opened into the intestine before it did externally: the smallness of the aperture in the intestine will account for the late appearance of fecal matter in the abscess.

HOSPITAL REPORTS.

MIDDLESEX HOSPITAL.

Obliterated Urethra, with Operation.

————, æt. thirty, was admitted into the Middlesex Hospital on the 16th of July, at seven in the evening, labouring under retention of urine. His business had been that of porter to a coachmaker: his work he thought had been too hard for him; but it was not till a fortnight before his admission that he could recollect with certainty having experienced difficulty in voiding urine. At that time a change took place in his manner of living: his circumstances happened to have improved, and, instead of starving upon insufficient nutriment, he now had it in his power to live well, and he lived freely and intemperately. Symptoms of obstruction of the urethra became apparent on this change of diet: he passed urine not without great effort and straining, and in a small stream, or by drops; his sufferings became aggravated, and for the twenty hours preceding his admission, no water had come from him.

Some attempts had been made during that morning, for the first time, to pass an instrument into the bladder, but they were ineffectual; and it appeared, from the blood which had flowed, that the membrane of the urethra had been torn. Mr. Mayo, under whose care the patient fell, now tried to pass an instrument into the bladder, but without success: the catheter appeared firmly opposed by a stricture situated near the triangular ligament of the urethra, and, when pressed with more force, seemed to find a channel in the substance of the corpus spongiosum. The patient complained of pain in the hypogastrium; the belly, particularly at the lower part, was tumid, as if from a distended bladder, but, when it was examined by the rectum, the bladder did not feel large or full. The pulse was under 100; the tongue furred, but moist; the countenance anxious.

The patient had forty drops of laudanum administered to him, and was placed in the warm bath: he experienced considerable relief, and was persuaded that he had passed water while he was in the bath.

At eleven o'clock P.M. Mr. Mayo saw this patient again: he appeared composed, and had lost the restlessness and anxiety which had before existed. The bladder was not tumid. Sixteen leeches was ordered to be applied to the perineum, and an injection administered containing a drachm of laudanum.

At four in the morning, the patient, who had dozed occasionally during the night, became again distressed, and his breathing hurried. Mr. Mayo was sent for, and, observing no symptoms that were not referrible to the urinary organs, and being unable to pass an instrument along the urethra into the bladder, with the consent of his colleagues proceeded without delay to divide the obstruction. The operation was performed in the following manner: A common staff was passed into the urethra, as far as it would go, to near the ligament of Camper; an incision, an inch in length, was then made parallel to the raphe of the perineum, and the groove of the staff cut into, close upon the obstruction; the staff was then withdrawn a little, and the scalpel carried forward half an inch in the direction of the urethra. The staff was then withdrawn, and a middling-sized silver catheter was passed with facility along the urethra into the bladder. The operation occupied about a minute. The quantity of water that flowed through the catheter amounted to no more than six ounces: it was slightly turbid, or contained a little mucus. The patient was placed in bed again; but he did not appear relieved by the operation: he had hiccup, his breathing became more hurried, he sank, and died at twelve o'clock.

The following day the body was carefully examined. The brain, the heart, and lungs, and the abdominal viscera and the kidneys, were perfectly free from disease. The only morbid appearances were in the bladder and urethra. The bladder was something thicker than usual, and towards the fundus, and in front, there was a round hole, that looked like a phagedenic ulcer: this aperture was much larger upon the outer than upon the inner surface of the bladder; the outer diameter being three fourths of an inch, that towards the mucous surface of the bladder only one third of an inch.

The cellular membrane between the peritoneum and linea alba, in front of this aperture and over an extent of sixteen inches square, was loaded with dark serous exudation, but which had not a urinous smell.

The state of the urethra was remarkable: it appeared evident that the incision into the groove of the staff had exposed that instrument, *not in the urethra*, but in the spongy body, where, for three fourths of an inch, it lay in a false passage. The next and last incision had opened this false passage into the membranous part of the urethra beyond, thus establishing a temporary free and continuous channel from the orifice of the urethra to the bladder; which channel, had the patient lived, would no doubt have closed towards the perineum, and the urethra have been restored. What completed the interest of this examination was the following circumstance: the final obstruction had consisted, *not in a narrow* *stricture*, but in *an absolute obliteration* of the canal of the urethra, for the length of half an inch. The staff having made its way into the substance of the spongy body beyond the stricture, when it was cut into, the closed part of the urethra was left untouched behind the incision, allowing the facts that have been mentioned to be distinctly verified.

The parts are preserved in Mr. Mayo's museum. There is no thickening about the obliterated urethra, which, from the state of a narrow stricture, must have passed into absolute obstruction in less than twenty-four hours.

Strangulated Crural Hernia. Operation.

ELIZ. GIBBS, æt. 52, was admitted into the Middlesex Hospital, in the evening of the 16th of July, under the care of Mr. Mayo. For sixteen years she had been subject to rupture in the left groin, and during the greater part of that time she had worn a truss. The 14th of July had been a day of hard work with her, in her occupation of washing; at eleven at night she was obliged to desist from work, as she turned sick, and observed that the rupture had come down, and was swollen under the truss: various attempts were made ineffectually to reduce it, but it was not till the rupture had been two days in this state that she came to the hospital. An injection was now administered: she was placed in the warm bath, and continued attempts were again made to return the bowel, but fruitlessly. The tumor was not very tense; but the pressure employed gave pain, and there was tenderness of the belly, immediately above the left groin. The patient occasionally vomited.

Under these circumstances, Mr. Mayo recommended the patient to submit at once to the operation. Upon her refusal, now late at night, he left her, desiring that another injection should be administered.

The following morning the symptoms had become more urgent: the vomiting was more frequent, the countenance appeared distressed, and the belly was more painful on pressure. A tobacco injection was now administered, and, although it produced no effect upon the hernia, yet the faintness which it occasioned for the first time alarmed the patient for her safety, and she consented to the operation.

The operation was performed about two o'clock on the 17th. The contents of the sac was a fold of small intestine, of a dark colour, but neither sphacelated nor its surface inflamed: it was returned. A partial tenderness of the belly remained for five days, for which leeches and fomentations were applied three times, with benefit. The bowels were freely opened with castor oil the day after the operation. The incision in the groin healed rapidly.

A FEW days ago we saw Mr. MAYO perform the operation of lithotrity upon a patient in the Middlesex Hospital: the case is going on very satisfactorily. We do not enter into the details, as Mr. Mayo has promised us an original communication upon this subject, containing an account of this case with others. As the success of lithotrity depends not only upon the expertness with which the operation is performed, but also upon the previous and subsequent treatment of the patient, we are glad to see it taken up with zeal by those whose general surgical talent gives to their manual dexterity the best possible chances of success.

GUY'S HOSPITAL.

Case of Aneurism of the Arteria Innominata; Operation of tying the Carotid. Sudden Death; singular Pathological Appearances.

Elizabeth Goodman, æt. sixty-one, observed, in the month of September, 1828, a pulsating tumor immediately above the right side of her sternum. This progressively enlarged till her admission into Guy's Hospital, about October 15th, 1828, when it was as large as an egg, and rather flattened. The following note of the appearances was made at that time: "The tumor rises from behind the right sterno-clavicular articulation, ascends to near one third of the length of the sterno-mastoideus muscle, and extends outwards about one third along the clavicle. Its pulsation is synchronous with the pulse, and then dilates on all sides, though pretty firm. The tumor has lately been very painful; numbness extends up the neck and along the right arm; nor can she lie comfortably on the right side.

"She is a swarthy little woman, of spare habit and regular living; has had a family and worked hard. Her pulse is sixty in the minute, hard and full on the right side, weaker on the left."

An occasional aperient was given her, and a belladonna plaster applied to the tumor.

In the course of six weeks, the tumor appeared somewhat larger, though she did not suffer so much pain from the pressure on the axillary and cervical nerves. Her pulse rose to ninety, and the difference in fulness between the pulse of the two arms became more apparent. She did not suffer much dyspnœa.—V.S. to ten ounces. Capiat Træ. Digit. m. x. ex Liq. Ammon. Acetat. bis die. Rep. Empl. Bellad. p. r. n.

Under the occasional use of these measures, she improved till the following spring, when she left the hospital sufficiently well, as she thought, to work for her livelihood. The tumor was now stationary; for neither the painful numbness, nor any dyspnœa, nor the external enlargement, had increased.

In March 1830, she was again admitted by Mr. Key, on account of aggravation of all her symptoms, especially her difficulty of breathing on going up stairs, and the painful numbness of the right arm being now so great that she could not sleep. During her absence her health has been pretty good, and she has undergone much exertion. The tumor has not enlarged so much as might have been expected: though somewhat dilated on all sides, it is altered chiefly by the sensation of the sac being thinned; its pulsation is very violent, and it is very tender.—Capiat Opii gr. ss. o. n. Empl. Bellad. tumori. Sumat Træ. Digit. m. x. ex Liquor Salin. t. d.

Her symptoms were again palliated, though the weakness and faintness induced by the digitalis obliged it to be omitted.

In April the aneurism enlarged forwards very much, in some degree dislocating the right sterno-clavicular articulation. It was therefore rendered much more prominent, ascending behind the sterno-mastoid muscle (which, with the jugular vein, was pushed a little outwards,) to the distance of two inches above the clavicle, and extending outwards to nearly three inches along that bone. Of course, its pulsation could be felt far beyond these points.

As the health of the woman was good, as she was very desirous that some curative means should be adopted, and as her difficulty of breathing was much diminished, Mr. Key determined, as the only chance of averting otherwise sudden death, to tie the carotid artery, and, if necessary, the subclavian also at a subsequent period. In this resolution he was borne out by the corroborative opinions of Sir A. Cooper, Professor Ekstrom, of Stockholm, Professor Galenzouski, of Wilna, and others. These gentlemen appeared to consider that the aneurism was confined to the arteria innominata, and could discover no indication of the heart or aorta being otherwise than healthy.

Operation. The operation was performed at half-past one P.M. on Tuesday, the 20th July. The patient walked into the theatre and was laid on pillows on a high table, in a supine posture; her head and shoulders raised, and the former lying on its left side, so as to stretch the soft parts of the neck somewhat. Mr. Key stood on the right side of the patient, and proceeded to operate as follows:

Commencing at the corner of the os hyoides, an incision was made downwards for an inch and a half along the anterior belly of the sterno-cleido-mastoideus, (this being the extent of the space between the tumor and the os hyoides), so as to lay bare the cervical fascia and platysma myoides. Several little veins were found to run across the line of incision, all of which, except two, were avoided; then, by gradual steps, Mr. K. proceeded, using the edge of the scalpel cautiously, till he exposed the upper edge of the omo-hyoideus muscle: here he laid aside the knife, and, by means of a director, separated the cellular membrane down to the sheath of the artery, on which was running a branch of the descendens noni nerve. Having laid bare the vessel, which appeared deep seated, he passed an aneurismal needle, armed with a silk ligature, under it, from within outwards. With the usual precautions, the ligature was made fast, the coats of the artery appearing very readily to give way. The whole operation occupied fifteen minutes, and not more than half an ounce of blood was lost. The patient bore it without a murmur, and complained of pain only when the vessel was tied.

At the instant of the ligature being tightened, the tumor first fluttered in its beat, and then became decidedly smaller, both in bulk and in its force of pulsation. The artery at the right wrist was not in the least affected, nor did the patient herself feel faint or sick, or in any way incommoded by the operation; for she spoke cheerfully, and appeared as well as before its performance. This diminution in the bulk of the tumor, however, was not permanent, for, before she had left the theatre, it was nearly as large as previous to the operation, though its beat was certainly fainter.

State of the patient after the operation. She was immediately carried to bed, and appeared cheerful; her pulse ninety, rather sharp, but also irregular in its beat; the tumor as before the operation in bulk, but with a fainter and more irregular beat; her head was raised on a high pillow, and laid on the left side. She had not been in bed more than half an hour before she suddenly raised herself, gasped for breath, and called for something to drink; she then fell into a severe fit of coughing, which lasted, with little remission, for several minutes: her distress was such as to create an apprehension of instant dissolution from the rupture of the sac. She was, however, able to take a little ammonia, with ten drops of laudanum, which succeeded in quieting her immediately. Her back was supported by high pillows, and she was again quite calm. In about an hour and a half from the operation, she appeared to be asleep; her breathing was natural, attended only by a peculiar snore, which did not now attract notice, because it was habitual to her: this noise gradually became fainter, till at length it quite died away. She was thought to be in a comfortable sleep, and therefore not disturbed till about half-past five o'clock, when, on being seen, it was found that there was no pulse in the wrists, and that the heart was beating with a scarcely perceptible flutter. It was not possible to afford any relief, for in a few seconds more she died. From the time of the paroxysm of coughing she had not spoken, but appeared perfectly quiet, and died in the most calm, tranquil, and unconscious manner possible.

The body was examined twenty hours afterwards. Both pleuræ were natural in appearance, but contained between them about a pint and a half of serous fluid. There was about four ounces of serum in the pericardium; there was no extravasation of blood any where; the sac was adherent to the upper part of the sternum, and adjacent part of the clavicle and first rib. These, together with the heart, left lung, and the soft parts in the neck, as far as the lower jaw, were now removed together, and a careful examination made.

The whole arch of the aorta, from the heart to its termination in the thoracic portion, was very much dilated, and all its inner surface quite rough, with numerous ossific scales spread on it: the heart itself was sound, and the semilunar valves nearly natural. Besides this, there arose a distinct sac from the right wall of the arteria innominata, and from the adjoining part of the arch, which was about the size of a small orange. This tumor had risen up on the neck, had pressed forwards the sterno-clavicular joint, had passed along the subclavian artery, and in less degree along the carotid, constituting the swelling which had been felt externally during life. This sac was more than half filled with laminæ of fibrin, in various degrees of consolidation. The carotid and subclavian arteries were both quite sound, and not at all involved in the disease. The part of the innominata near the bifurcation was also lined with ossific scales, like the aorta, and its opening much enlarged. The ligature was fairly on the carotid, about two inches below its division.

Upon prosecuting the dissection of the parts with a view to preparation, a most unusual circumstance was discovered, viz. the left carotid opened from the arch of the aorta by an orifice scarcely large enough to admit a small probe. It appeared as if a membrane had formed across its original orifice, very nearly resembling the membrane over the foramen ovale in the septum of the auricles of the heart; but what is still more singular is, that the carotid itself, from the aorta to the bifurcation, retained its natural caliber, though supplied entirely through a mouth scarcely one tenth part of its natural size. There was no vessel whatever entering any part of this common carotid which could in any way have conveyed blood to it. At its division, the external carotid continued of its natural size, but the internal became abruptly very small, almost immediately after its commencement. The interior of this, the left common carotid, contained an adherent layer of fibrin similar to that in the aneurismal sac, and not at all like the strings of fibrin ordinarily found in blood-vessels. This appeared to be a step towards the gradual obliteration of the artery.

The subclavian was of its usual size, and the vertebrals were rather small than otherwise on both sides; so that, when the right carotid was tied, the brain was so very much deprived of its supply of blood as to render it unable to support the actions of life; and hence the quick and perfectly quiet dissolution which followed.

The brain was examined. It was found healthy; its vessels were quite sound, and contained the ordinary quantity of blood. There was a little serous effusion between the membranes.

The abdominal viscera were generally sound, except a small polypus in utero, which grew from just below the orifice of the left fallopian tube. The descending aorta was quite natural.*

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* Medical Gazette.

CRITICAL ANALYSES.

Quæ laudanda forent, et quæ culpanda, vicissim
Illa, prius, cretâ; mox hæc, carbone, notemus.—Persius.

An Inquiry concerning the Indications of Insanity, with Suggestions for the better Protection and Care of the Insane. By John Conolly, M.D. Professor of Medicine in the University of London.—8vo. pp. 496. John Taylor, London, 1830.

The chief objects which Dr. Conolly has in view are to render the recognition of insanity less difficult, by showing in what it differs from those varieties of mind which approach the nearest to it; and to point out those circumstances which, even in persons decidedly insane, can alone justify various degrees of restraint. That the task which he has undertaken is one of no ordinary difficulty, will be at once acknowledged. Every attempt that has hitherto been made to draw a precise line between perfect sanity of mind, eccentricity of mind, and positive insanity, has failed, although the subject has frequently been considered by the first metaphysical and practical writers. That the same difficulty frequently exists in determining when personal restraint is necessary, and when it is not, has recently been proved by the contrariety of opinions which have arisen in particular cases that have attracted so much public and professional attention. It is much to be lamented that, where the medical student has so much to learn, he should, in this country at least, have so little opportunity of learning. When he enters upon the practical duties of his profession, no cases can fall into his hands that will cause him more perplexity, or that will so much endanger both his moral and medical reputation, as cases of insanity; and yet his previous studies must have generally left him quite unprepared for the difficulties with which he will here have to contend. We cannot, therefore, but agree with Dr. Conolly that the interests of the public greatly require that medical men, to whom alone the insane can ever properly be intrusted, should have opportunities of studying the forms of insanity, and of preparing themselves for its treatment, in the same manner in which they prepare themselves for the treatment of other disorders.

"It would be some compensation for the unavoidable evils of public lunatic asylums, if each establishment of that kind became a clinical school, in which, under certain restrictions, medical students might prepare themselves for their future duties to the insane. It is true that insane patients are not always in a state to be visited by pupils, and that a very strict discipline would be necessary to prevent disorder or impropriety: but such discipline is quite practicable; and such arrangements might be made as would at once guard those patients from disturbance whom disturbance might injure, and present a sufficient number of instructive examples to the student. In some cases, also, the change of persons and of conversation would be actually beneficial to the patients; and would only be what they are now accustomed to, during the visits of persons who come to see them from mere curiosity." (P. 7.)

We know how many plausible objections may be urged against any such system as is here recommended; but we think Dr. Conolly's suggestion might be acted upon without injury to the unfortunate patients, while the adoption of it must confer the most important benefits upon medical students, and indirectly upon the public, for whose service their professional information is acquired.

In his observations upon the present condition of lunatic houses and lunatics, Dr. C. assures us that he has "no wish to exaggerate the disadvantages of lunatic houses;" and yet we apprehend that he has dwelt upon these "disadvantages" with undue severity. The reprehensions that he has so freely bestowed may apply to a few, and we hope and believe only a few, of such establishments.

We must pass very cursorily over the several chapters which Dr. Conolly has dedicated to an analysis of the human understanding, and a description of its various degrees of perfection in different individuals: its inequalities, weaknesses, and peculiarities, which do not amount to insanity; and the modifications of intellectual activity and power by stimuli, disease, or age. The medical student, who is ambitious of acquiring practical information upon the important subject of insanity, must first make himself acquainted with the history of the human mind in general. He must know its healthy functions and natural modes of action: if he be ignorant of the numerous varieties of mental characteristics which belong to different individuals; if he have not a clear conception of the many deviations which exist from a healthy standard of mind, which still do not reach insanity, he will be as unequal to the task of judging of or treating mental diseases, as he would be of alleviating corporeal maladies without a due knowledge of the healthy structure of the body. We fully admit, therefore, the necessity for the discussion which Dr. Conolly has entered into, and we greatly admire the easy elegance of language in which he has conducted it; but we believe that many will be inclined to think with us, after they have perused the several chapters to which we have referred, that he has spread "a mite of *original* matter through a world of space."

Dr. Conolly believes that practitioners, "for the most part," neglect the important duty of considering, with all the caution which such a serious case requires, *whether or not the departure from sound mind be of a nature to justify the confinement of the individual, and the imposition of restraint upon him, as regards the use or disposal of his property.* What facts may have occurred to Dr. Conolly to justify so harsh and almost indiscrimate a censure upon his professional brethren, we know not. We think that the charge is incautiously made; but, in the present temper of the public mind, which has recently been most unjustifiably inflamed and misled upon the subject, such observations will doubtless be very popular. Dr. Conolly, however, we are certain, would spurn at any personal advantages which might arise from increasing the prejudices of the public against any members of his profession.

It is the opinion of Dr. Conolly, that, if we give a due consideration to the intellectual constituents of what is called sound mind, and take an enlarged view of its varieties, that we shall find, on coming to the examination of cases of undoubted insanity, that the departures from sound mind may generally, if not always, be recognised; and that the second and most essential part of the practitioner's duty, that of determining concerning the liberty or restraint of each individual affected with insanity, lies within narrower limits than he has been led to suppose.

> "As a knowledge of the natural structure and functions of the body prepares him to detect impairment of either, so should he be prepared for the detection and management of diseases affecting the mental functions, by a previous acquaintance with the natural constitution of a healthy mind. Among the subjects comprehended in the studies of zoology and human physiology, this has seldom attracted a due, because a useful, share of attention; although the phenomena and the order of phenomena present no greater difficulties in the way of observation than those which he is accustomed to in his study of the functions of respiration, circulation, digestion, or reproduction; and are in no degree more hidden and mysterious even in their nature, though certainly not less so." (P. 36.)

Dr. C. first describes the healthy functions and natural modes of action of the human mind, and then traces mental impairment, from the slightest to the severest kinds. We agree with him that this is the mode in which the inquiry ought to be conducted. The general plan of investigation here adopted differs but little, indeed, from that followed by ARNOLD, CRICHTON, and other writers.

"By this consideration of the mental lesions, one after the other, and by contrasting each of them with sound or healthy mind, the conclusion has certainly to me appeared inevitable, that insanity never exists without such an impairment of one or more of the faculties of the understanding as induces, or is accompanied by, some loss of the power of comparing. The justness of this conclusion may now be tried by selecting different examples of insanity, in some of which one faculty, in some another, in some many, are affected; and by observing whether or not the affection of one or more faculties would alone account for the insanity, or whether such affection is only followed by insanity when the comparing power begins to be injured; and whether the nature and extent of the insanity depends, as I have stated it to be my belief that it does, on the nature or extent of that injury or impairment of comparison." (P. 306.)

Dr. Conolly does not dogmatically insist upon the infallibility of the definition of insanity which he has arrived at by the train of investigation he has adopted. He puts it interrogatively, whether we can approach any nearer to a definition of insanity than by saying, that *it is the impairment of any one or more of the faculties of the mind, accompanied with, or inducing, a defect in the comparing faculty?*

"In a former chapter, many examples were given of the sensations being diseased or false; but in which the patient knew them to be so, and retained his reason. Let us, in this place, attend to some of the cases in which the sensations are morbid, and the reason is not retained. In numerous instances the hallucination of the sense arises from an imagination previously over-excited; that over-excitement is disease, but not madness; it produces an hallucination, but, if the hallucination is known to be an hallucination, still there is no madness; if it is mistaken for reality, then the man is mad. An ambitious general, under Napoleon, believes that he hears the people salute him as their king. A Vendean commander sees Louis the Sixteenth in the balcony of the Tuilleries on a Sunday, and believes that the monarch calls to him by name, and creates him a marshal of France. An enthusiastic musician hears the singing of a choir and company of angels. In all these cases, such thoughts as perhaps not unfrequently have floated through the mind, are, from some disturbance in the functions of the brain, vividly represented, and too tenaciously retained. The ambitious general, in his reveries of possible greatness, has often, it may be, contemplated that, like his master, he might attain sovereign power: the Vendean commander, exaggerating his own merits, has long thought himself deserving of high distinction: the composer is familiar with harmonious mental conceptions: but something has happened to give to these imaginations unusual strength. In each case, then, there is a diseased state of the mind. But it is the insane belief which causes these men to be considered mad. From whence does that insane belief arise? Doubtless, from a want of the power to compare things which are, with things which are not. Whether this want of power arises from the force of the morbid impression, or from the want of attention to present circumstances, or from the defective manner in which past things are recalled, still it is the want of that power which leads to the madness. The general hears the voices of the people; if he looked out of the window he would see that no assembled crowd was there to hail him king: but he cannot see this, for his attention is not in his power; he can only hear the solicitations of the people; he cannot, therefore, compare the deception of some sense with the evidence of another sense; and he becomes inevitably mad. The Vendean commander sees the king in the balcony, and all the people assembled on the same occasion see the king also; but the Vendean hears the king call to him; which the rest of the people do not hear: it is a morbid or false impression; if he looked around him, he would find that no impression of the king's words had reached any ear but his; but this he cannot do, and he returns to his house full of his new dignity. He does not remark the absence of any further notice of him; the silence of the newspapers; the neglect of the court. He cannot, perhaps, remark these things, he cannot attend to them, and therefore he has nothing which he can compare with his hallucination: he makes no comparison, and he becomes a madman on the subject of the hallucination." (P. 307.)

The senses are subject to various delusions, particularly the senses of sight and hearing; sometimes the sense of taste; more rarely the sense of touch. A thousand instances are related of persons who have imagined some change to have been wrought in their appearance or structure. Men have believed themselves to be converted into teapots; into barrels which were rolled along the street; or into a town pump, to which no rest was given from morning until night. A respectable tradesman fancied himself metamorphosed into a seven-shilling piece, and went round to his customers to entreat that, if his wife should present him in payment, they would not give change for him. Others have imagined some animal was in their stomach, or that many armed knights were battling there, and some have thought themselves possessed of a double set of bowels, productive of discordant and highly inconvenient movements.

"In all these cases, for they all admit of one explanation, there is first a morbid sensation. We have seen that a morbid sensation does not constitute madness. But this impairment of sensation becomes, in certain cases, productive of, or accompanied by, a loss of the comparing power; either productive of the loss by its force, or accompanied by it in consequence of some further disease, as of the attention or memory, and then there is madness. When a man can see, hear, eat, drink, and sleep, and yet affirms that he is a teapot, it is plain that he either has no sensation but that which gives him the impression of being a teapot, or that he cannot attend to other impressions so as to compare them with that morbid impression. If comparison were made by him, his belief would be at an end; for a teapot neither eats, nor drinks, nor sleeps. A man who, sitting quietly in his room, believes himself to be a barrel rolled along the street, is, in the first place, the victim of a morbid sensation; but if he could compare the sensations arising from the objects actually around him, with his morbid sensations, he would detect the delusion, and laugh at his morbid feelings. He cannot do this, either because he feels nothing but his morbid sensations, or cannot let his attention rest on other sensations; and, in either case, he is mad, because he cannot compare one sensation with another." (P. 310.)

In the disturbance of a fever, the image of a friend is seen sitting by the patient's bed, and the soothing tones of his voice are heard; but the patient stretches out his hand, and finds that no hand meets his, and that the chair is empty. "The evidence of the sense of touch is compared with the evidence of the senses of sight and hearing, and the delusion is at an end. Cases have been observed in which, the delusion not imposing on the mind, patients have been amused to find the solitude of their sick chamber relieved, at the time of every evening exacerbation, by a party of friends, the presence of whom was known to be a mere hallucination. It is when the delusion is stronger, or the comparison of other circumstances with it imperfect, that madness begins." M. Falret, in his work on Suicide, mentions the case of a lady who, when she merely looked at her skin, often thought it scaly, like the skin of a fish, but used immediately to rectify this false sensation by the sense of touch, which was unimpaired. Here was a morbid sensation, rectified by the act of comparison. If the power of comparing had not remained with her, she would have been mad with respect to the state of her skin.

"The celebrated Pascal was the subject of a false sensation, representing to him the edge of an immediate and fearful precipice. To allay his apprehension of falling down it, his attendants were accustomed to place a chair near him, in the direction or situation of the supposed precipice; and he then compared what was done with what appeared to him, and drew the just conclusion that a chair could not stand upon air, beyond the brink of a precipice, and that he was therefore not in real danger. As long as he was able to do this, for he could not always do it, he was enabled to get the better of the hallucination; whenever the comparison could not be made, the delusion yet remaining, he was not sane on the subject of the precipice." (P. 315.)

Dr. Conolly adduces various other instances, and introduces many arguments, for the purpose of showing that the definition he offers will bear a strict examination. We have no doubt that it will apply as generally, perhaps more so, than any other that has been proposed. We believe, however, with Dr. Haslam, that it must be impossible to discover an infallible definition of madness, as it is an attempt to comprise, in a few words, the wide range and mutable character of this Proteus disorder.

We now pass to that part of Dr. Conolly's work to which the practitioner will refer with the most anxiety, the application of the inquiry to the duties of medical men, when consulted concerning the state of a patient's mind. When a practitioner is consulted concerning a patient supposed to be labouring under mental derangement, he cannot avoid deriving first impressions from the representations of those who apply to him. He must guard himself, however, as much as possible against suggestions which are designed to influence his proceedings. He should *never* fail to pay an early visit to a patient suspected to be insane.

"The whole duty of a medical man in such cases may be resolved into two parts:

"1. To determine whether the individual in question be of sound mind.

"2. To give an opinion concerning the treatment required, and especially concerning the necessity of restraint, and the degree and nature of the restraint." (P. 365.)

If the patient is disturbed by any cause of agitation which we can detect, we should refuse to give a final opinion concerning the state of his mind: we should even be careful that he has undergone no recent disturbance; and should present ourselves to him with the same openness of manner with which we approach the bedside of a patient in fever. The good effects of this mode of accosting those who have been treated with harshness, Dr. Conolly has often witnessed.

"The fact of the patient's madness can only be established by certain tests of the manner in which his intellectual faculties are exercised, and these tests are to be found in his appearance, in his dress, in the known physical accompaniments of madness, and in his words and actions. *That* is the medical question. The *next* is a medico-legal question, and turns wholly on the disposition of the patient to injure himself or his property, or to injure others and their property; and on the probability of such a disposition, though not manifested, being suddenly developed. On the first question hangs the medical treatment and superintendence; on the second, restraint, confinement, deprivation of authority, and control over property. Medical care and superintendence may be necessary in every case; but the mistake has been to conclude, that restraint and the other circumstances are also necessary, which they certainly are not.

"The strong association formed between certain judgments, and certain associated ideas, and certain external acts, including those muscular actions which give expression to thought independently of speech, often portrays the madness, and its character, plainly enough, in the features and movements of the patient. When a man, who has not recently been exposed to great cause of irritation, is found indulging in great violence of gesticulation and passionate exclamations, or when he sits motionless, and does not regard those who come into the room, and does not reply when spoken to, there can seldom be any doubt that such a man is not in his right mind. If, approach him in what manner he may, the practitioner finds that he cannot be tranquillized, or that he cannot be roused, of that man's insanity there can be no doubt or question: but the practitioner must first vary his modes of approach; must do all that he can devise to allay what may be temporary, though inordinate passion, or to soothe what may be deep and speechless, though temporary grief, before he comes to this conclusion." (P. 373.)

That insane persons are often very dexterous in concealing, for a time, any indications of their lamentable malady, is notorious; but, whatever deception we may suspect, if the patient complains in quiet terms, asserts his sanity without vehemence, assigns interested motives for the conduct of his relatives without passion, or with but natural warmth, we must not allow ourselves to be so influenced by a good opinion of any other party as to be heedless of this demeanour. The case should engage our most serious attention.

"The practitioner should be aware that there are many individuals whose ordinary manner is weak and foolish, but who are yet quite equal to the management even of important concerns; and that there are others whom the least hurry discomposes. No one has authority to insist on immediate decision, when the decision is in any degree doubtful; and if the practitioner pronounces a decision before he has really satisfied his mind, he has no right, from that time forward, to look upon himself as an honest man." (P. 389.)

The result from careful inquiries must govern the whole treatment of the case; both the administration of medicine, as well as the application of restraint, against the abuses of which Dr. C. particularly directs his remarks.

"The medical treatment must depend on the bodily state of the patient; for violence, and incoherence, and raving, may all arise, in different instances, from states of the body entirely opposite to one another, and requiring an opposite treatment. The restraint necessary is determined by the violence or folly which is present, or by the violence or folly known to be meditated." (P. 389.)

In various instances restraint may be necessary, but it is too much forgotten that it might often be effected without the confinement of the individual among mad people. Restraint, however, either of the person or the management of his own affairs, can never be justifiable except by probable danger to the person of the patient, or to others, or to his property, or to the property of others. But it may often be proper to *watch* a patient very narrowly, which may be effected without restraint; the latter being added when watching proves it to be necessary. Men may entertain various delusions which, being neither dangerous to themselves or others, do not require that they should be restrained by confinement.

"There are cases in which the madness is of a nature to threaten others, or the individual himself, with bodily danger; the thoughts of the patient turning much on scenes of destruction, and cruelty, and blood. The looks, or the language, or some outrage already committed, commonly reveal this character of the malady in cases in which it prevails; and, when once it is revealed, every thing that security demands must be at once resorted to, and persevered in until all danger is past. To say when the danger is past, is one of the most difficult things among the responsibilities of practising among the insane." (P. 444.)

Practitioners are frequently called upon to determine concerning the actual state of mind of an individual, who having committed some great crime, the question is whether he should be made responsible for it with his life.

"No question can well be more serious; and it is not only embarrassed by all the common difficulties of ascertaining the exact state of the mind, but by the additional difficulty of determining whether or not, whatever may be the present state of the prisoner, he was mad at the time of committing the crime; a thing, of course, hardly admitting of a satisfactory decision. On looking over the remarkable trials in which crimes have been perpetrated under these circumstances, it is impossible not to see that men have been executed for them, whose eccentricities have been greater than those which, in other cases, have been looked upon as justifying restraint of person and deprivation of property. The determination of the existence of the insanity is the medical question, and it must be determined in the usual manner; sufficient time and opportunities being demanded for making such an investigation as the serious nature of the case requires. The criminal may be mad on one subject only, and that may be the subject of his crime; he may be mad at intervals, and might be mad when he committed the crime; but I believe the legislator will sometimes be inclined to consider punishment justifiable in such cases, for the protection of society from other monomaniacs, or from those occasionally insane, whom yet such an example may restrain. At all events, a man who has once in his madness committed murder, or who has attempted to commit murder, must be secured for the remainder of his life against a repetition of such an act; and the more doubtful, transitory, or limited his insanity, the more necessary will it be to insist on that confinement which all would agree was required in plainer cases. The prevention of the crime is what might be more attended to than it is; for the act is often that of a mischievous idiot, whose restraint would appear necessary long before he proceeded to such daring or cruel mischief, if some erroneous notion respecting his not being mad, or his being considered idiotic, did not blind medical observers to the consideration of the dangerous character of his imbecility." P. 450.)

In the last chapter, Dr. Conolly offers various "suggestions for the protection and care of the insane;" for which we must refer to the work. Amongst other regulations, it is recommended that all persons confined or in any way restrained on account of insanity, should be allowed the use of pen, ink, and paper, and that they should be permitted to address sealed letters to the governor of the asylum, or to some person in authority over them. We believe that such an indulgence would very rarely be advantageous to insane persons, and we are certain that it would frequently be decidedly mischievous. A passion for scribbling is common among this class of patients, and, in several instances which have fallen under our own observation, the mind of lunatics has been kept in a high state of excitement, so long as they were in possession of materials for writing. Such an indulgence would only enable them to annoy others, and would lead them to torture their own minds to describe imaginary complaints and grievances, whilst it would, at the same time, keep their imaginations eternally on the rack upon the subject of their hallucination, and thus strengthen and confirm their malady.

Dr. Conolly's work proves him to be a man of talent and liberal education: his style of composition is fluent and elegant. One fault, however, pervades it, which cannot escape remark; a want of conciseness. In various parts of the work the argument is enervated by prolixity of language. We are somewhat doubtful of the utility of the work as an instructive volume to the medical student, the great point to which every writer should aspire. We fear that, when the practical inquirer, who has consulted previous authors on the subject of insanity, rises from the perusal of these "Indications," and reflects upon what he has read, he will not find that much additional information is impressed upon his mind which can serve him in the actual performance of his professional duties.

The Influence of Climate in the Prevention and Cure of Chronic Diseases, more particularly of the Chest and Digestive Organs: comprising an Account of the principal places resorted to by Invalids in England, the South of Europe, &c.; a comparative estimate of their respective merits in particular Diseases; and General Directions for Invalids while travelling and residing abroad. With an Appendix, containing a series of Tables on Climate. By JAMES CLARK, M.D. Member of the Royal College of Physicians in London, &c. Second Edition, enlarged. 8vo. pp. 400.—Underwood, 1830.

BOTH by English and foreign journalists the first edition of Dr. CLARK's work was hailed as a very valuable addition to the medical literature of the day. The rapidity of its sale is a proof that the general opinion of its merit is equally favorable. It is one of the very few professional works which embodies much instructive information that must be peculiarly acceptable to the medical practitioner and student, and at the same time be highly interesting to the general reader. During the short period that has elapsed since the publication of the first edition, Dr. Clark has availed himself of every additional information he could procure, relating to the part on Climate. He has again carefully examined the principal places in England frequented by invalids, and from the observations he has made, and the information he received on the spot from authentic sources, he has enlarged and materially improved the account he formerly gave of these places.

To the only article on the climate of the northern Atlantic, in the former edition, (that on Madeira,) he has, in the present, added a few observations on the principal islands in that ocean, occasionally resorted to by invalids from Europe, viz. the CANARIES, the AZORES, the BAHAMAS, and the BERMUDAS. A pretty full account of the West

Indies is also now given, of the true character of the climate of which the author has reason to know much misapprehension has existed, from which great practical evil has resulted. Of some places in the south of Europe Dr. Clark candidly confesses he is not yet able to speak with confidence.* Lisbon, however, he considers an improper residence for consumptive invalids. From numerous medical friends residing in many of the places noticed, Dr. C. has received strong testimonials of the accuracy of the account he has given of their respective climates, and of their influence on diseases; and in letters which he has received from Madeira and Nice, it is stated that the cases sent to these climates during the last season have been better selected than on any former occasion. No man can have stronger inducements, therefore, to continue an investigation commenced under such favorable auspices. Much public benefit has been already conferred, and it has been liberally acknowledged.

The article on England has been entirely re-written; but as the additions it contains are necessarily incorporated with the description of it, of which we formerly gave so copious an analysis,† and as they would scarcely admit of separation, we shall pass on to the consideration of the ATLANTIC ISLANDS. The climate of the North American continent differs materially in its physical characters from that of Europe and Africa. The summer heat is much greater, and the winter cold much more intense, under the same parallels of latitude, on the American shores than on those of Europe. The western Atlantic is also more stormy than the eastern. It appears from comparative meteorological observations, that while the winter is here nearly 6°, and the spring 2°, *colder*, the summer is 3° *warmer* than at Barbadoes. The autumn temperature is the same at both places.

"The explanation of the high temperature of the Bahamas, during the two latter seasons, is probably to be found in the frequent occurrence of southerly winds during that period of the year, and in the less degree of regularity of the trade winds at these islands than within the tropics. In the winter and spring, however, the temperature is considerably lower, and this is the period of the year which chiefly interests us in our present inquiry.

"The Bahama islands, generally speaking, are not unhealthy;

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* Dr. Clark expresses his regret that the work of the late Dr. Hennen, "Sketches of the Medical Topography of the Mediterranean, &c." was not sooner published, as the observations of that accomplished physician would have been of great assistance to him in this part of his work. It will now, however, supply any deficiency.

† London Med. and Phys. Journal, October 1829, p. 332.

although there is a considerable difference in this respect, between the different islands. That of New Providence, in which is the capital, Nassau, the only town in the colony, is not by any means one of the healthiest; on account chiefly of some swampy ground which it contains. The small island, called Harbour Island, close to Eleuthera, one of the largest of the group, is esteemed particularly healthy, and forms the chief resort of invalids and convalescents from New Providence. There are several other healthy spots, as on the island of Abaco; but at all these places there is a great deficiency of accommodations, and, moreover, they are sixty miles distant from Nassau, the only place where medical advice is to be found.

"The most prevalent diseases, are fevers, chiefly of the intermittent and remittent character, and bowel complaints; cholera is not uncommon, and occasionally the Bahamas are visited by epidemics of the yellow fever; but the two first-mentioned diseases are by far the most prevalent.

"From the above description, it appears evident, that the Bahama islands are not well calculated for the generality of invalids. I am disposed to think the climate is not suited for consumptive patients, on account of the rapid changes of temperature, and the prevalence of winds often of a dry, cold, character. At the same time, persons having connexions in these islands, who could render their residence more advantageous, by affording the means of choosing a favorable station, and thus diminishing the inconveniences of the climate, might pass the winter there safely; and residents in the West Indies might derive considerable benefit by a change to these islands for a few months during this season. The wet and dry seasons occur pretty regularly at the same periods of the year, as within the tropics, and the same rules which are laid down, respecting the arrival and departure of invalids to and from the West Indies, and their conduct while there, are generally applicable to those visiting the Bahamas."

BERMUDA, upon the whole, Dr. C. considers to be a healthy place. It is not subject to any endemic disease. During the autumn, occasional fevers, of a character resembling those which form the scourge of the West Indies, prevail with great violence. This, however, is by no means an annual occurrence. Bowel complaints are the most common diseases. Consumption is frequent. The cool season, from October till May, is the most healthy, and the only part of the year during which this climate is at all suited to invalids. One of the principal objections to Bermuda, as a winter residence for pulmonary invalids, is the prevalence of strong winds.

"Provided, however, that domestic circumstances rendered Bermuda a convenient residence, even consumptive invalids, with a little care to avoid exposure to the irritating north-west winds, might pass the winter safely, and, perhaps, with benefit, in this climate. By consumptive patients, I mean those predisposed to consumption. When this disease is established, it is found to run its course more rapidly here than in England. There are many beautiful spots in these islands, where, protected from the northerly gales by the cedar-clothed hills, the invalid might find sufficient space to enjoy exercise in the open air, almost every day during the winter. The neighbourhood of the little town of Hamilton, situated nearly in the centre of the islands, affords the most favorable situations for such a residence."

Dr. Clark has not been able to collect sufficient information to enable him to speak with confidence of the physical qualities of the climate of the CANARIES and AZORES, or of its influence on disease.

The WEST INDIES. These islands are occasionally recommended as a winter residence for pulmonic patients, and some other chronic diseases; but neither the physical characters of their climate, nor its influence on disease, seem to Dr. C. to be generally known or understood by medical men in this country. He confines his observations to the Caribbean islands which are those best suited to invalids, and most likely to be frequented by them. Of these islands, generally speaking, the high are the more healthy, the low and marshy situations very unhealthy, Barbadoes, St. Vincent, Antigua, and St. Kitts, are preferable to all the others for invalids.

"The mean annual temperature of the West India Islands, near the sea, is about 79° or 80°. The mean daily range is only about 6°; and the extreme annual range is not more than 20°. The mean temperature of the sea, at considerable depths in the vicinity of these islands, is 80°; and this is also the temperature of the springs near the level of the sea in Jamaica, as noticed by Dr. Hunter. The mean temperature of some of the habitable spots of the mountain ranges is probably not more than 65° or 70°. The mean temperature of the seasons, according to the European division adopted in this work, is at Barbadoes as follows: Winter, 76°7; Spring, 79°; Summer, 81°; Autumn, 80°."

The winter and early part of the spring is in general remarkably dry, and the weather fine. The summer is dry and hot, and autumn the season of the heavy rains. In the lower part of the Caribbean islands very little dew is deposited. From the account given of the climate of the West Indies, it appears evident that it is an improper one, generally speaking, for consumptive patients."

"It is too hot during the night; and, during the day, the high temperature and cloudless skies almost entirely defeat one of the chief objects for the attainment of which the invalid migrates to a warmer climate; I mean exercise in the open air. He could scarcely venture to take exercise, even on horseback, after seven o'clock in the morning, during the coolest season; and, as there is hardly any twilight within the tropics, he would not be able to enjoy the coolness of the evening, in this way. If we have found cause to condemn Italy as a summer residence for consumptive patients, there seems no just reason why we should commend the West Indies, even in winter, the temperature of which is above the summer temperature of any place in the south of Europe. If to this consideration we add the numerous privations, annoyances, and discomforts which are almost inseparable from a residence in the West Indies, I think we might almost be justified in erasing these islands from the list of places suited to the phthisical invalid. Among other contingent disadvantages may be mentioned the difficulty of procuring houses in proper situations, the expenses of living, the annoyance of musquitoes, sandflies, &c.

"If to these objections, founded on an impartial consideration of the nature of the climate and of the disease, we add those of a more conclusive nature, derived from the experience of medical men, I conceive the question of the propriety of sending patients labouring under confirmed consumption to the West Indies, will be set at rest for ever.

"In the first place, I may remark, that tubercular phthisis is by no means rare, even among the white inhabitants of the West India islands, while it is of frequent occurrence among the black; and it is not uncommon for individuals affected with this disease to migrate in search of health to a more northern climate.

"These circumstances, however, although properly noticed here, are not adduced as arguments against the propriety of sending consumptive patients to the West Indies; because we find phthisis prevailing, in a greater or less degree, among the natives of every civilized country in the world. But a very different conclusion must be drawn from the fact confirmed to me by numerous medical friends, who have resided in the West Indies—that consumptive cases sent thither proceed much more rapidly to a fatal termination than in temperate climates. And indeed, this is what we should expect, *a priori*, from considering the nature of the disease, and the well known influence of the summer climate of the south of Europe on its progress. I am not, however, prepared to maintain that cases of consumption do not occasionally present themselves, in which, even in the advanced stages, a temporary residence in the West Indies might not prove useful. But I do venture to affirm, that such instances are of comparatively rare occurrence, and I would scarcely attempt to designate them. If there are any such, they will be found among the more chronic examples of the disease, which occur about the middle period of life, and which are attended with little constitutional excitement."

The opinions of various writers are referred to, to shew the injurious effects of the West India climate on confirmed consumption. Those who have had the best opportunities of judging, are still somewhat undecided with respect to the influence of this climate on persons predisposed to, or threatened with, consumption. The affections of the chest most likely to derive benefit from a residence in the West Indies, are chronic diseases of the bronchial membrane, occurring in persons otherwise of a tolerably sound constitution. In stomach complaints, the West Indies is in general unfavorable. Chronic rheumatism has been ranked among the diseases that are benefited by the West India climate; but Dr. C. suspects more from theoretical reasoning than practical experience. In scrofula, affecting the external parts of the body, the climate generally proves serviceable. Dr. FERGUSON speaks in strong terms of the good effects which he has observed this climate to produce in scrofulous diseases. With children and young growing persons the West Indies does not agree.

"There are also certain constitutions to which the West Indies will prove injurious, whatever may be their disease. Of this class are persons of weak irritable constitutions, or with irritable bowels, or deranged digestive organs generally, or with an irritable skin, or subject to cutaneous eruptions of an irritable character, or to copious perspirations; persons who suffer from severe headachs, or have any hereditary disposition to cerebral disease, or to insanity; and plethoric fair people generally."

The four islands above mentioned afford all the advantages of the country and climate, and fewer of the disadvantages, than most of the other islands. In many respects Barbadoes is superior to all the others, but St. Kitts, one of the most beautiful of the West India islands, possesses its advantages in some instances. A few interesting remarks are made relative to the management of the invalid during his voyage to, and residence in, these islands. Upon these subjects, very contradictory, and often very erroneous, counsel is given, and therefore Dr. C.'s directions are the more necessary and valuable.

On the Diseases and Injuries of Arteries, with the Operations required for their Cure; being the Substance of the Lectures delivered in the Theatre of the Royal College of Surgeons in the Spring of 1829. By G. J. GUTHRIE, F.R.S., Professor of Anatomy and Surgery to the Royal College of Surgeons, Surgeon to the Westminster Hospital, to the Royal Westminster Ophthalmic Hospital, &c.—8vo. pp. 416. Burgess and Hill, London, 1830.

(Concluded from p. 65 of our Number for July.)

THE *effects arising from the application of a ligature to an artery* are next considered. Mr. Guthrie's observations have not led him to believe that a coagulum is absolutely necessary to the permanent closure of the artery, although it certainly assists in maintaining it.

"The artery is supposed to contract gradually up to its first collateral branch, but this depends entirely on the use for which the branch is required. In cases of amputation at the middle of the arm, the artery will go on diminishing in size up to the subscapular branch; the circumflex arteries diminishing in proportion, in consequence of their being so much less necessary than before the operation. The rule, as a general one, will however hold good in an operation for aneurism, but I do not believe it to be so important as has been supposed. I have seen several instances in which the artery has remained pervious below the collateral branch, the next immediately above the part where the ligature has been applied. Neither will the presence of a collateral branch immediately above where the ligature has been placed upon the artery always interfere with the consolidation of the wound, and the closure of the canal of the vessel. It may impede the process, and render it for a time less safe, and in some instances it may prevent it altogether. I have so often seen large arteries heal after division close up to the giving off of a considerable branch, that I can consider them to be always capable of doing so, provided they are naturally sound. If they are not sound, it is very doubtful what process may take place; but it will be less likely to be a healthy one, if interfered with by the greater proximity of the circulation. The power which suppresses hemorrhage in a bleeding artery, resides in the very extremity of the vessel itself." (P. 161.)

The ligature should be round and small; and the smaller the better, provided it be strong enough. The surgeon should bear in mind that there is no security for the patient until after the ligature has come away, unless it is retained an inordinate length of time, from having included some substances which do not readily yield under irritation; such as the extremity of a nerve, or a slip of ligament, which is not compressed in the noose of the ligature.

"The advantages to be derived from the application of a small ligature, from the least possible disturbance of the surrounding parts, and from absolute quietude, whilst the healing processes are going on, must be so obvious as to require no further observation. Several cases will be adduced hereafter, in which secondary hemorrhage was the consequence of motion of the limb at too early a period; and an undue interference with the ligature, by pulling at it, cannot be too earnestly deprecated, as giving rise to it in a similar manner.

"When secondary hemorrhage occurs to any extent, either through ulceration of the artery, or from the extension of ulceration or sloughing of surrounding parts to it, a ligature must be placed upon it nearer to the heart, and as far above the mischief which has taken place as the collateral circulation will permit; but the observations on the appearance of the blood and the manner in which it flows, (made at page 137,) should be strictly attended to. Many secondary hemorrhages may be restrained, and ultimately suppressed by moderate pressure, and the ligature should only be had recourse to, when the application of pressure would appear to be, or has been proved to be, insufficient for the purpose." (P. 166.)

On the Application of a Ligature on the Artery below the Aneurism. Mr. Guthrie is disposed to concur with Bichat in attributing the origin of this operation to Desault, who would appear to have proposed it to his class about sixty years ago. Boyer, in the account which he has given of it, says that the first attempt to cure an aneurism on this principle was made by Vernet, who tried it by compression on the upper part of the femoral artery, but below the tumor, which, however, increased so rapidly in size, its pulsations also becoming stronger, that he was obliged to give it up, and confine himself to palliative means. Deschamps performed the first operation, but without success, in a case of femoral aneurism, in a man sixty years of age. The second operation on this principle was performed by Sir Astley Cooper, in a case of aneurism of the external iliac artery, which extended into the abdomen, as high as the internal iliac. The femoral artery was tied between the origins of the epigastric artery and of the profunda. The pulsation continued, but the tumor did not increase in size after the operation. The ligatures separated favorably. The aneurism diminished so considerably, that it was conceived, if its diminution continued, it would in a short time be possible to tie the external iliac above the tumor. The patient went into the country to recruit his general health, when the aneurism burst into the inguinal canal, and he died in consequence of the extravasation of blood into the cellular membrane of the pelvis and the scrotum. In this instance the femoral artery was tied below the origin of the epigastric and circumflexa ilii arteries: a current, therefore, Mr. Hodgson says, continued to pass through the sac into these vessels: consequently the blood was not at rest in the aneurism, and did not coagulate. After the ligature of the artery, the blood was transmitted more readily through the internal iliac than through the arteries which originated below the aneurism, namely, the epigastric and circumflexa ilii. "The contraction of the sac, therefore, appears to have been the consequence of the diminution of the stream which passed through it, in the same manner as an aneurism contracts, although a current enters it after a ligature of the artery at a distance from the disease." The parts were not examined after death.

The third operation on the femoral artery below the tumor was performed by Mr. White. No diminution of size was perceptible on the application of the ligature, and it was unsuccessful in consequence of the inflammation and sloughing which followed. This operation was performed in consequence of the success which was *stated* to have followed its revival by Mr. Wardrop in several cases. Of these cases Mr. Guthrie gives an abstract, and he also alludes to the theory and opinions published by Mr. Wardrop in 1828. Mr. G. very properly states that, since the publication of Mr. W.'s book, circumstances have taken place which have made a great alteration in the success supposed to have followed several of these operations.* Mr. Wardrop, in his observations on these cases, seems to consider that the cure is accomplished on the same principles as in the Hunterian operation for aneurism, viz. by the stagnation and subsequent coagulation of the blood in the sac, aided by the contractile power of the artery and sac. Mr. Guthrie shows, however, "that the theory on which these operations are founded is not the same, and they cannot therefore, with propriety, be compared." But, in impugning the theory on which this operation is founded, Mr. G. by no means intends to deny its utility, or the necessity for its performance. It ought, he says, to be done in every case of carotid aneurism, in which there is not space for the operation nearer the heart.

Mr. Wardrop, relying on the correctness of the theory by which it is supposed that the cure of an aneurism took place when the artery was tied beyond the tumor, has proposed to extend it to aneurisms below which a ligature cannot be applied, such, for instance, as aneurisms of the arteria innominata; and on the principle that, if the passage of a portion of the blood which usually passed through an aneurismal tumor was cut off, by establishing a barrier beyond or below it, by ligature, the remaining portion would coagulate.

"He proposes in a case of this kind, therefore, to place a ligature first on the carotid, and then, if necessary, on the subclavian artery. I have already endeavoured to prove that a barrier formed beyond the tumor will not have the effect which he has expected from it, unless it is accompanied by an inflammatory action which is communicated to the sac, and through which the coagulation takes place. The preparations I have referred to, and the various cases I have instanced or alluded to, seem to put the point beyond doubt. Indeed, if it were not sufficiently established, Mr. Wardrop's own book furnishes further proof, which cannot be disputed.

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* Mr. LAWRENCE, in his surgical lecture (Med. Gazette, May 15th, 1830,) speaks very guardedly upon this subject. We require, says Mr. L., a considerable number of facts more than we at present possess, in order to determine the question whether tying the arterial trunk beyond the aneurismal tumor be capable of leading to its cure.—ED.

" In the case of Mrs. Denmark which he published, supposing it to be a cure of aneurism of the innominata, which had been effected by a ligature placed on the subclavian artery, but who has since died of the disease, the fallacy of his theory seems to me to be most obvious." (P. 186.)

Mr. Guthrie concludes the subject of the application of a ligature below the aneurism by the following summary.

" 1. Whenever the operation for aneurism succeeds from placing a ligature below or beyond the tumor, it does so by giving rise to inflammation in the aneurismal sac and in the artery both above and below it; and unless it does this it fails.

"2. That this operation, as well as all others, is exceedingly dangerous in the vicinity of the heart, from the facility with which the inflammation may be communicated to that, as well as to the neighbouring organs.

" 3. That it will not effect a cure, in cases of aneurism of the innominata or arch of the aorta, although it may give temporary relief by the partial diminution of the tumor.

" 4. That, being as likely to destroy the patient as to give this relief, it ought never to be performed until the life of the patient is in extreme danger from the size of the tumor, when the person may have the opportunity of choosing between a more sudden death or a temporary relief; but the chance of a cure should never be calculated upon.

" I have watched two cases of aneurism, supposed to be of the innominata, for the last two years, on both of which it had been proposed to perform this operation, but which the patients refused to undergo. They are still nearly in the same state; and although in many instances the disease proceeds with rapidity, it is in others slow in its progress, occasionally receding and again increasing in size, until at last a new impulse seems to be given to it, which tends rapidly to a fatal termination. It is then only that an operation of this nature should be thought of, and the result, even as to temporary relief, must always be very doubtful." (P. 208.)

Of Wounds and Injuries of Arteries. A variety of experiments have been made on the arteries of dogs and horses, to observe the manner in which the processes take place in them to effect a cure, or which precede the dissolution of the animals. This has been done to elucidate the manner in which these processes take place in man under similar circumstances. The analogy is not satisfactory, as the injuries of arteries in man do not follow the same course as in animals. The processes of reparation in man are by no means so favorable, as far at least as observations made on injuries of arteries will enable us to judge.

"When an artery is cut transversely in man, to one third or fourth of its circumference, it forms the same circular opening as in animals; and, if the artery is large, the bleeding usually continues until the person faints, or it is arrested by pressure. The difference, however, between the arteries of man and of animals is here most strongly exemplified. In an animal, the bleeding will probably be restrained altogether, without any assistance from art. In man, even with the best assistance in the way of compression, unless the circulation be altogether stopped, hemorrhage will in all probability recur, and, if the external opening be closed, a spurious aneurism will be the consequence." (P. 213.)

In man, no reliance can be placed on the efforts of nature in healing a wounded artery. It is not asserted that a wounded artery will not heal by the efforts of nature alone: Mr. Guthrie knows the contrary. But he is of opinion that such an event should never be contemplated after the recurrence of hemorrhage from it, and that the aid of art is consequently necessary. When an artery is completely divided, it is less likely to continue to bleed, than if it had been only wounded. A variety of opinions have been entertained as to the means employed by nature for suppressing the hemorrhage, as well as those recommended by art. Mr. Guthrie enters at some length into a critical examination of these different doctrines, and he observes,

"In the different theories I have noticed, and especially in that of Dr. Jones, it does not appear that the gentlemen who proposed or maintained them have ever conceived that there was a difference in the means employed by nature, according to the size of the artery injured or divided; that the difference of structure between an artery, such as the carotid or the inguinal, and the tibial or the radial, could cause any deviation from the process they described as taking place, and as they presumed in one invariable manner in all arteries. I shall venture, however, to say that, on the size and variation of structure of the artery, the process employed by nature essentially depends; that it is not the same in large as in small arteries; and that it is not even quite the same in the upper and lower ends of the same artery.

"An artery of moderate dimensions, such as the tibial or brachial, and particularly all below these in size, are in general capable, by their own intrinsic powers of arresting the passage of the blood through them without any assistance from art, or from the surrounding parts in which they are situated. This overthrows at once the whole theory which relates to the sheath of the vessel and its offices, and in a great measure to the importance derived from the formation of an external coagulum." (P. 222.)

Mr. Guthrie has established the fact both by observation and experiment on man, that arteries in the extremities, of the second order in regard to size, will cease to bleed, through their own efforts, unaided by the assistance of the surrounding parts. He does not mean to contend that the injured vessel is never assisted by them. In many instances, when the artery is divided *in situ,* great assistance is given by the surrounding parts after the retraction of the artery, and from other causes. As a proof that the power and influence of the heart over the circulation through the arteries has been greatly overrated, it is stated that, if the axillary artery be laid bare, before amputating the shoulder, and the surgeon take it between his forefinger and thumb, he will find that almost the slightest possible pressure will be sufficient to stop the current of blood through it. If the artery be fairly divided by the last incision, which separates the arm from the body, without any pressure being made upon it, it will propel its blood with more apparent than real force. A finger placed as lightly as possible against the orifice of the artery, will suppress the hemorrhage. We are even assured by Mr. Guthrie, that if the orifice of the artery happen at the same time to retract and turn a little to one side, so as to be placed in close contact with a solid piece of muscle, the very support thus afforded will prevent its bleeding.

> "These are facts, the two first of which I have placed beyond a doubt twenty times in my life. In 1816, I amputated twice at the shoulder-joint in the York Hospital. In neither case did I allow the slightest compression to be made on the subclavian or axillary arteries. On the division of the artery, I first took hold of the divided end between my finger and thumb; then letting it go, I placed the point of my forefinger lightly on the very orifice of the vessel, and stopped the bleeding. In one case, in which I wished a certain loss of blood to take place, I did this twice before nearly a hundred spectators, no one of whom afterwards doubted the fact. So confident am I on this point, that I care not, in this operation, whether a person be ready or not to compress the artery, satisfied that it is always within my own power to prevent any hemorrhage of importance." (P. 227.)

In amputation of the hip-joint, the femoral and profunda arteries bleed furiously, if disregarded, but the slightest compression between the finger and thumb stops both at once. Mr. Guthrie has been taught by nearly all the battles of the peninsular war, to hold all arteries that can be taken between the finger and thumb in great contempt, and he maintains this opinion both by precept and example, publicly and privately, on every occasion. He has lost but one patient from hemorrhage, and in that case a tourniquet was applied. In every point of view, these facts are of the utmost value, and principally because they must tend to relieve the mind of the surgeon from the apprehension of difficulty in arresting hemorrhage.

> "It is quite impossible for a man to be a good surgeon, to do his patient justice in great and difficult operations attended by hemorrhage, unless he has this feeling, unless his mind is fully satisfied of the truth of these observations. Whilst his attention is called to more important circumstances, to which the whole of it should be directed, it is perhaps absorbed by the dread of bleeding, by the idle fear that he will not be able to compress the artery, that he may have a dozen vessels bleeding at once, that his patient will die on the table before him. Once fairly in dismay, and the patient is really in danger; but endowed with that confidence, which is only to be acquired through precept and example supported by experience, he surveys this scene with the most perfect calmness, and taking the great artery between the finger and thumb of one hand, he places the points of all the other fingers, of both if necessary, on the next large vessels; or he presses the flaps or sides of the wound together until his other hand is at liberty, in consequence of a ligature having been passed around the principal artery. That it is a scene sufficient to try the presence of mind of any man, I admit; but he is not a surgeon who is not equal to it, who does not delight in the recollection of it when his patient is in safety, and his recovery assured." (P. 228.)

When, however, an artery is only half cut through, and in a situation where the pressure cannot be fairly and equally, although slightly made, the hemorrhage continues in spite of all attempts to suppress it. It is, Mr. Guthrie presumes, from the consideration of such cases, and with the recollection of his own dismay, that the surgeon has been led to suppose that pressure will not stop the current of blood through a large artery. Many cases have occurred to Mr. G. in which the femoral artery has been completely divided; in others, it has only been injured. When the artery has been completely cut across in the *middle or lower* part of the thigh, the patient has either died without assistance, or the hemorrhage has ceased spontaneously. He has not met with an instance in which it was necessary to tie the femoral artery, after it had been divided, and the hemorrhage had ceased for twelve hours, the efforts of nature being sufficient to prevent its return; but he has had several opportunities of examining these arteries when the patient has died of gangrene of the extremity, or of hemorrhage from the lower end of the artery requiring amputation. In the fourth volume of this Journal, several cases which occurred to Mr. Guthrie at the battles of Albuhera and the assault on Badajos, were published, bearing on this point.

"Private J. Barnes, 29th regiment, on the 16th of May, at the battle of Albuhera, received a musket ball in the right thigh, behind and above the knee, inclining downwards and inwards, close to the condyles of the femur, and in the direction of the femoral artery becoming popliteal; which bled violently at the moment, and continued for a few minutes, during which time he conceives he lost two quarts of blood. It then ceased, and he was dressed in the usual slight manner, and remained two days upon the field of battle, until removed to Valverde, nine miles on a bad road, and on men's shoulders, in a blanket converted into a bearer. He was considered as one of the slighter cases, until the gentleman in immediate charge of him requested me to see him, on account of his toes being in a state of mortification, which was considered to point out a more serious injury than was at first supposed.

"On the evening of the 3d of June, eighteen days after the accident, the man was placed on a bullock car, to be removed with the rest of the wounded to Elvas; the mortification of the foot having ceased to increase, and a line of separation having been drawn. Shortly after the cars moved, I was informed that he was bleeding from the wound: it evidently appeared to be the popliteal artery; and, as it flowed slowly, I supposed from the lower divided end. The situation of the wound making the dissection difficult, and the foot being partly lost, I determined on amputation above the knee, which was performed at Olivenca. I caused the amputated limb to be sent after me to Elvas, that it might be examined at my leisure. I carefully traced the course of the wound, and found in it a little coagulated blood, but could not see the mouth of the vessel. A probe passed into the amputated end of the artery was obstructed before it reached the ulcerated surface by near an inch; and on passing it up the lower one, it was stopped exactly in the middle of the track of the ball, by a veil or substance drawn across the mouth of the vessel, and which, on careful examination, showed the point of the probe at one part of the circle, although too small to let it through; and from this part I conceive that the hemorrhage came. The divided ends were one inch apart; each portion was cut out with the ulcerated spot on which they terminated, and opened in their course. The upper, or femoral portion, for near an inch, was filled with a firm coagulum, filling up the contracted mouth of the vessel like the gradual diminution of the neck of a claret bottle; a layer of the same covers the mouth and immediate vicinity, and appears to have a commencing organization. The vein is closed in the same manner. The lower popliteal portion of the artery is very peculiar: the substance drawn across appears to have closed it completely at one time, and to have given way from the rough motion of the car at the point now open, and which is very small even when the sides of the artery are approximated. A very little soft coagulum was behind it; and if the man had not been removed, I think the vessel would have remained secure. This case shows very distinctly the means adopted by nature for the suppression of hemorrhage from either end of a divided artery." (P. 233.)

"Captain St. Pol, of the seventh or Royal Fusiliers, whilst in the ditch at the foot of the breach at Badajos, was wounded in the ham from behind: he fell instantly, and lost, as he thinks, a considerable quantity of blood; he was, on recovering, raised from the ground, and walked a few paces prior to his being carried to his tent, where I saw him in the afternoon of the next day, the 7th. The leg was greatly bent, and turned outwards, and had ceased to bleed before his arrival in camp. A substance could be felt on the inner side of the patella, which, by the sensation communicated to the finger on moving it, appeared to be the ball: it was extracted by a valvular incision, after the manner recommended for the removal of cartilaginous substances found in joints. An artery was accidentally divided, and some dark-coloured blood also issued from the cavity: the ball was lying loose and unconnected; the finger, on being passed in, discovered no splinters of bone; the knee was swelled; and the entrance of the ball, which was a small one, would not admit the finger. His having walked some distance on the leg, and the absence of any splinters between the articulating extremities of the bones, induced Dr. Armstrong, the surgeon, and myself to think that the ball had entered with little injury to the bone; and, after stating to the patient the little hope we had of ultimately saving the limb, independently of the great danger to which he was exposed, compared to the certainty of the operation of amputation at the moment, we consented to his retaining the limb for the present, thinking he would at least get through the inflammatory stage, when the operation could be performed satisfactorily to himself, although under more unfavorable circumstances. Seventeen leeches were applied immediately to the knee, and a cathartic given: the appearance of the leg and foot was natural; no diminution of heat, sensation of pain, or numbness, were felt by the patient, or any thing observed by the surgeons. The next day he was removed into Badajos on a litter, the heats of the tents being insupportable.

"On the morning of the 9th, I saw him early, and the want of circulation in the foot was evident from its having lost its natural colour and warmth; the knee was swelled, but not painful; and it was obvious to me that the artery had been divided by the ball. The marbled appearance and yellow colour soon indicated the loss of the leg above the calf; vesications formed on the foot, already of a green colour.

" On the 12th, the extent of the gangrene was defined on the back of the knee up to the original wound at its lower edge, gradually receding as it advanced to the fore part of the leg, which, for three inches below the knee, was apparently sound; the uneasiness of the knee being moderate, the bites of the leeches and the incised wound looking perfectly healthy, although the latter had not united.

" On the 16th, the separation of the dead from the living parts having taken place from behind, and being well marked and commencing on the fore part, it was agreed in consultation to amputate the limb, which was done about the middle of the thigh. Sixteen vessels were tied, and as little blood as possible was lost. The parts were gently brought together, without much hope of union.

" On the 18th, there being some swelling of the stump, the strips of plaster, already useless, were removed; one remaining as a support to the vessels.

"20th. Half the ligatures came away at once, they having gradually formed into two parcels: the stump was quite open, the bone well covered, and good granulations appearing, with a great discharge of well-formed matter.

" On the 22d, I did not see him, but was informed that the want of strength to carry on the necessary actions became apparent.

" On the 24th, he died.

" On dissecting the amputated limb, the sciatic nerve was found untouched, the ball having passed on the inside; the popliteal vein was also entire, having a small tumor adhering to its under part between it and the artery, the divided end of which I observed closed by a yellowish green firm substance, readily distinguishing it from the surrounding parts. On clearing the whole out from the bone, and making a small circular opening into the tumor, which was elastic and covered with brown fibrous layers, it showed itself to be an aneurismal sac, smooth on the inside, containing florid arterial blood, and some little coagula. The cavity of the sac is not perfectly regular, being nearly divided on one side by a process running into it. The artery, on being carefully slit up to the closed end, appeared to have been injured above the part divided by the ball, and to communicate with the sac by a small fissure or rupture, at the place where the piece of wood is inserted to keep the vessel open. The end of the artery is nearly slit up, so as to show the very little thickness of the closing substance, and the great original contraction of the diameter of the vessel. There was no internal coagulum, neither was there any laid over the external part of the artery; between it and the bone there was a coagulum lying, of the size of a small phial-cork. Displeased with myself for having listened to the petition of hope, which I knew, even under more favorable circumstances, would be futile, I felt some satisfaction on viewing the diseased parts, which showed that process of nature completed which in the former case had only been begun, although a longer period of time had elapsed." (P. 237.)

It was supposed that the aneurismal sac existed prior to, and was independent of, the gunshot wound, as a sac of that nature could not be formed in ten days. Dr. Armstrong recollects that Captain St. Pol complained once or twice of uneasiness in the knee, previous to his being wounded, but in so casual a manner as not to have caused further inquiry. The other end of the artery could not be found, from the state of the parts.

Although mortification does not occur in all cases after injury of the femoral artery, it is always to be dreaded. Mr. Guthrie mentions it as a curious and interesting fact, that the *lower* end of a divided artery is more prone to secondary hemorrhage than the upper; so much so, that when bleeding occurs after having been arrested for a period of four hours, it takes place, in all probability, from the lower end.

"This may always be known from the darker colour of the blood, and from its flowing out in a continuous stream, in the same manner as water rises from a spring, and not with any arterial impulse. The surgeon has no right to believe that the blood comes from the upper extremity of the artery, unless it is of a florid, scarlet, arterial colour, when it will usually rush out with force, if not with the undisguised arterial impetus. This cannot be an accidental circumstance; it has happened much too often to be attributed to such a cause, and it has appeared to me to arise from a difference in the process adopted by nature in one end of the artery to that in the other. It is a point to which I paid particular attention during the whole war, and which I have since made the subject of experiment. I cannot be mistaken as to the fact, although I may err in the explanation." (P. 248.)

Mr. Guthrie believes that the retraction or contraction is not so complete in the lower as in the upper end of the vessel, and he is certain they are not so permanent. He has been led to suspect also, from observation and experiment, that the internal coagulum of blood is not so perfectly formed in the lower end of a divided artery.

"The same kind of yellowish green matter marks and covers the situation of the lower extremity of the artery, as it does the upper: it is, however, thinner where it immediately covers the end of the artery, which in none of these cases was contracted in the conical manner I have described as occurring in the upper extremity of the vessel. On the introduction of a probe into the artery with the greatest gentleness from below, it made its appearance at a point on the yellow space, raising a thin portion of it as it protruded. On laying open the artery, the orifice seemed to have been once closed by this layer of fibrine or lymph, but without a degree of contraction corresponding to that observable in the upper end of the same artery; the layer still forming an obstacle sufficient to cover and close three fourths of the orifice, the blood having flowed through the remaining fourth.

"These appearances seem to indicate a different process in nature to that adopted for the closure of the upper end of the vessel; and the frequency of their occurrence, to demonstrate that the process is a natural one. I have been led to conclude that the retraction and contraction of the lower end of a divided artery is neither so perfect nor so permanent as at the upper end; and that the internal coagulum is in many instances altogether wanting, or very defective in its formation; giving rise to a very different result from that which is observable in the upper divided end of the same vessel." (P. 250.)

When an artery is merely cut or torn, but not quite divided, it is in the same state, with regard to hemorrhage, as if it had given way by ulceration. It can neither retract nor contract, and will continue to bleed unless pressure be accurately applied and maintained, until it destroys the patient. The practice to be pursued is to divide the vessel if it be a small one, as the temporal artery; when it will retract and contract, and bleeding soon ceases. If an artery of larger dimensions be wounded, a ligature should be applied above and below the wound, and the vessel may be divided or not, at the pleasure of the surgeon.

On the Method of performing Operations on Wounded Arteries. Mr. Guthrie has, in his previous works, clearly shown the impropriety of applying the theory of the operation for aneurism to wounded arteries. It has been concluded by many surgeons that the same methods of operating, the same directions, and the same mode of proceeding, would suit the injury as well as the disease. The brilliant theory of the cure of aneurism by the Hunterian method, and the more brilliant operations which followed it, seemed to have effaced the recollection of the ancient methods of proceeding in regard to wounded arteries; and it was not until repeated failures had convinced every one that the theory which would apply in cases of aneurism would not apply to wounded arteries, that it was abandoned, and the old method was resorted to of tying both ends of the wounded vessel. For the restoration of the proper mode of proceeding in such cases, we are in a great measure indebted to Mr. Guthrie. But, although the principal was abandoned, the *modus operandi* has been retained, as if the operation were for aneurism, and not for a wounded artery.

"In an operation for aneurism, the directions are all laid down with precision: a just proportion of the common integument is to be divided, and no more; then so much fascia of various kinds; then such a muscle is to be turned, dissected inwards or outwards as the case may be, or detached, but on no account is it to be divided; and the operation is to be finished by applying the ligature in the particular place which has been exposed by these proceedings. Nothing can be more proper in a case of aneurism; but the wound of an artery is an accidental occurrence, it does not happen always in the particular place which will suit these directions: nevertheless, they are to be adapted to it in the best way that can be thought of, and the young surgeon is left to his discretion. The principal error in this method of proceeding, as adapted to wounded arteries, arises from a strange and unaccountable fear of cutting muscular fibres, which seems to pervade the minds of all the surgeons of the present day who have treated on these subjects. A dread so truly ludicrous, that it appears incomprehensible how it can possibly have continued until the present time. I shall suppose that a gentleman of rank and importance in the country is struck on the back part of the leg by a very sharp cutting instrument, which divides the muscular fibres of the gastrocnemius and soleus muscles in a longitudinal direction, cuts across the tendon of the plantaris, but does not injure either the fibular or posterior tibial artery, or its nerve. I shall further suppose that any one of the best anatomists and surgeons in London is sent for, and his opinion desired as to the result of the case: I venture to assert that he would say, his patient was a most fortunate man to have suffered so little injury from such a wound; for if the posterior tibial artery or nerve had been divided, he might have bled to death, or have been lamed for life; but that, under existing circumstances, he hoped, by position, quietude, compress, bandage, &c., that is, by a due application of the usual means, to be able to reunite the wounded parts; so that, in all probability, unless some untoward circumstances took place, the gentleman would soon recover, and without any permanent defect or lameness. No man of knowledge could say otherwise. Let us now suppose that the same gentleman, having been cured of the accident according to the opinion of his surgeon, has the misfortune to be wounded by a pistol ball in a duel whilst standing sideways towards his opponent; so that the ball passes across the calf of the leg, close behind, but not injuring either bone, although dividing the fibular or posterior tibial artery, which bleeds in such a manner as to require the ligature: we will also suppose the same surgeon in attendance: what operation would he do, and how would he set about it? I will take the liberty of suggesting that, in a case of this kind, blood would flow from both wounds, and that a surgeon acquainted with his profession would first endeavour to ascertain which vessel was wounded. This he could only do by enlarging one or both openings, so as to enable him to introduce his forefinger into each, the point of which might, from its sensibility, detect the wound through the impetus of the flow of blood, if it happened to be placed on the cut part of the artery. In this manner he might possibly be enabled to judge with accuracy which of the vessels was wounded, although it might very readily happen that both were injured and both were bleeding. The minor disaster will answer our purpose, and one vessel only shall be wounded. Shall he, with the Baron Dupuytren, tie the femoral artery as for aneurism, or shall he, on the other hand, cut down and tie both ends of the artery." (P. 255.)

If the latter operation be determined upon, the mode in which it will be performed is objectionable, if those rules are complied with which are laid down in the best surgical works. A difficult, tedious, and dangerous operation is recommended, Mr. Guthrie contends, solely because it is not usual to make a longitudinal incision in the muscles of the calf of the leg; an incision which, if made by accident, would not be deemed dangerous or likely to lead to any subsequent detriment.

"An incision is to be made six or seven inches in length, by successive and rapid incisions, through the integuments and muscles of the calf of the leg down to the fascia. The centre of the incision is to be on a line with the shot holes, or if they are diagonal to each other, between them; and it may be either directly in the middle of the calf, or a little to the side of, or directly over the artery supposed to be wounded: it is not material which. The smoothness of the fascia points it out, and the loose cellular membrane connecting the divided muscles to it, allows of the edges of the long incision being easily separated, and to such a distance as to admit of the exposure of the great nerve, the arteries, and veins, in as distinct a manner as any other arteries, veins, and nerves can be exposed in the human body. The tourniquet is now to be unscrewed, and the bleeding, if the wound did not bleed before, leads to the spot where the artery is injured. The knife may be applied perpendicularly to the fascia, and the artery laid bare for three or four inches in extent, by as common a piece of dissection as any ever practised, and nothing can interrupt the application of the ligature. The nerve and the fascia cease to be surgical bugbears, and the operation is as simple as any in surgery. No surgeon or anatomist will dispute this statement: he may, however say that the muscles have been divided, and that surgeons have not been in the habit of cutting through them by a fair incision in their length; that they have hitherto only done it by insinuating a director under the head of the soleus, and separating it from its attachment to the bone; as if the separation of a muscle from its bony attachment was not much more likely to lead to weakness and defect in the action of that muscle, than a mere interstitial incision in a longitudinal direction." (P. 260.)

Mr. Guthrie goes even a step further, and shows that a muscle may be cut transversely to its course or fibres, whenever it may be desirable to do so, to place a ligature on a wounded artery beneath. He proves also that little or no inconvenience results from such practice.

"Lieutenant-Colonel Wildman, now of the Carabineers, was wounded at the battle of Albuhera, by a sabre cut directly across the middle of the deltoid muscle, so as to divide it completely down to the bone of the arm. He was taken prisoner at the same moment, and the French surgeons dressed his wound by filling it with charpie, and then bound the arm down to the side. He made his escape in the night, and was brought to me the second day after the accident. The first thing I did was to remove the dressings, raise the arm to a right angle with the body, by which alteration the edges of the wound might be brought into contact, and then try, by a continuation of the position, and by compress and bandage, to keep the parts together, so that as little deficiency of substance might appear as possible. The wound did not unite under this treatment by the first intention, but it readily did so by granulation, and his recovery is so complete that at this moment he is unconscious of any defect in strength or motion whatsoever.

"At the battle of Salamanca, a French soldier received a sabre cut, vertically and directly across the fibres of the pectoralis muscle, at the inner side of the vessels; the lower and fore edge of the muscle was completely divided. The man had other wounds, but this one was never considered but as a simple one, and by proper compress and bandage, it united so as to leave merely a little weakness of no consequence." (P. 262.)

Another point is discussed; namely, the manner of securing the ulnar artery, when wounded a little below its origin, when it is covered by the pronator teres, and the superficial flexors of the forearm. By high authority, we have been told that, "in the superior third of the forearm, the great depth at which this artery lies from the surface, and the number of muscles which cover it, render it impracticable to pass a ligature around it." Mr. Guthrie asks, why is it impracticable? and he answers, that the artery cannot be laid bare unless the muscles above mentioned are divided, and that there is no reason why this should not be done. Cases of this sort are referred to, in which the lives of patients have been lost from the fear or unwillingness of the surgeon to divide a few muscular fibres.

"It is necessary now to ask what would be the consequence of this division? The utmost consequence which could ensue would be weakness of the arm in the performance of certain motions: but I have no hesitation in affirming that no such consequence would ensue. I have seen the parts divided, nay, I have divided them myself, and the patient has recovered without any sensible defect. The following case is a strongly marked one on this subject: it was from it that I first drew this confirmation of my ideas on wounded arteries.

"The corporal of pioneers of the twenty-ninth regiment, was wounded at the battle of Rolica by a musket-ball, which passed through the anterior and upper part of the forearm, fracturing the ulna. A few days after the injury, an artery sloughed, and bled profusely. The surgeon in charge immediately tied the brachial artery above the wound, and in the night the hemorrhage recurred, and the man nearly bled to death. The arm was now amputated, and the ulnar artery was found in an open and sloughing state.

"This man's arm would have been saved, if an incision had been made down to the artery, taking the shot hole as a centre, and then, when the vessel was laid bare, placing a ligature on each of its divided ends.

"At the battle of Vimiera, which followed a few days after, a soldier received a similar wound, save that the artery bled forthwith, and could only be stopped by the continued application of a tourniquet. I cut down on the artery, through all the intervening parts, carefully avoiding the median nerve, and found the artery more than half divided; a ligature above and below the wound suppressed the hemorrhage, and it did not afterwards return." (P. 272.)

Mr. Guthrie animadverts keenly, but very fairly, on the practice recommended by M. Dupuytren, in a memoir he published in the Repertoire Generale, &c. tome v. 1828: "Sur les Anévrysmes qui compliquent les Fractures," &c. M. Dupuytren applies the theory of Hunter's operation for aneurism to the treatment of a wounded artery; but, as upon this point we have already stated the opinions of Mr. Guthrie, it is not necessary formally to show that he cannot agree with the practice recommended in the memoir.

Mr. Guthrie next offers some interesting practical observations on the best mode of proceeding in those cases in which hemorrhage takes place from an artery that cannot be tied at the part where it is wounded.

A few pages are devoted to aneurism by anastomosis; and the volume concludes with directions for securing various arteries.

The reputation of Mr. Guthrie as an acute observer, his extent of experience, and his indefatigable zeal in the improvement of his profession, are so well known, that every work that proceeds from his pen is sure to meet with attention. We need only say, that the present volume abounds with interesting information to the surgeon.

COLLECTANEA.

Floriferis ut apes in saltibus omnia libant,
Omnia nos, itidem, depascimur aurea dicta.

PATHOLOGY.

Case of Enteritis, in which the extremity of the Ileum was found strangulated by the Appendices Epiploicæ. (From Dr. O'Brien's *Report of the Fever Hospital, Dublin.*)

Margaret Lyons, æt. thirty. Admitted May 31, 1829; third day of illness.

June 1. Complains of excruciating pain of abdomen, which is increased by the slightest pressure; abdomen is rather tympanitic; pulse quick, weak and irregular; countenance anxious; bowels obstinately constipated; tongue loaded.—V. S. ad unc. xx. Calomel et opium, et enemata purgantia. Twenty leeches to be applied to abdomen in the evening, with a warm bath.

2d. No improvement: had twenty grs. of calomel, and several purgative enemata, without effect; pulse weak.—V. S. and unc. xvi. Calom. et opium. Twenty-four leeches to the abdomen in the evening.

3d. No amendment; she vomits frequently; had thirty grs. of calomel since yesterday, without any observable effect on gums or otherwise.—Hirudin. xxiv. abdomin. statim. et vesp. empl. vesic. amplum.

4th. Not better; blister gave her much pain; she is now delirious, and vomits incessantly.

Died on the morning of the 5th.

I felt so intense an interest in this case, that I was determined to omit no exertion to procure an examination of the body. I accordingly sought out the patient's residence, explained to her friends the nature of her case, and earnestly requested they would permit me to examine the body, after its removal from the hospital. The request was complied with, and the dissection performed by my friend, Surgeon Trant, in my presence.

On opening the abdomen, we were soon directed to the seat of the disease by a remarkable blackness, which presented itself in the lower portion of the ileum, where it is connected with the cœcum. On examining this portion of the intestine accurately, we discovered that it was strangulated in an extraordinary manner, by a membraneous band or chord, which embraced it tightly, and completely prevented the passage of feculent matter. It was at first imagined that the stricture was effected by a convolution of the appendix vermiformis; but, on further examination, it was ascertained that the stricture was formed by two of the appendices epiploicæ attached to the cœcum and colon, which descended over the extremity of the ileum in a singular manner, and enveloped it in a loop, which completely annihilated its cavity. The whole of the peritoneal coat was in a state of inflammation; and the omentum, which was red and vascular, adhered to the intestines in several points.

Thus I had the satisfaction of ascertaining that no remedies which our art can furnish could have been of any avail in this case.

Ramollissement of the Spinal Cord. (From Dr. Abercrombie, *on Diseases of the Brain and Spinal Cord.*)

This remarkable affection will be illustrated by the following important cases. In the first it was complicated with extensive inflammation of the membranes; the second shows the disease confined to the body of the cord; and the third is chiefly remarkable from its resemblance in the symptoms to an affection of the brain.

Case I. A gentleman, aged eighteen, of an unhealthy constitution, had suffered for several years from ulcers in various parts of his body, accompanied by exfoliation of bone, especially from the leg, thigh, and sacrum. For several months before the fatal attack, he had a sore on his head with caries of the bone beneath, to the extent of a shilling or upwards But he was in good general health, and was pursuing his studies at the University of Edinburgh, when, on the 24th of September, 1823, he consulted my friend Dr. Hunter, on account of sore throat with slight fever, which passed off in two days; and, on the three following days, he was going about in his usual health. On the 30th, he was again confined to the house, and complained of pain in his loins, without fever. On the 2d of October, this pain had increased; it was chiefly seated among the lower dorsal vertebræ, and extended downwards in the course of the ureters, with frequent desire to pass urine. On the 3d, the urinary symptoms were gone, the pain was diminished in violence, and it was lower down, being now chiefly referred to the sacrum. On the 4th, he continued in the same state; he was entirely free from fever; the pain in the back was by no means severe, but, as it was not removed, a blister was applied to it.

5th. The pain of the back was removed, but he complained of pain of the belly, especially about the pubis; there was some dysuria, and a feeling of numbness on the inner side of both thighs. At night there was retention of urine, requiring the catheter.

6th. The numbness of the thighs was increased, with acute darting pains occasionally shooting along them, and complete retention of urine.

7th. Perfect paraplegia of both thighs and legs, without loss of feeling; retention of urine, and involuntary stools. The most judicious treatment had been employed without any benefit.

8th. I saw him for the first time along with Dr. Hunter. There was now perfect paraplegia and complete retention of urine; pulse about ninety and soft. There was some pain, which was referred to the lower part of the dorsal region; there was no other symptom. Cupping on the back was employed, followed by another large blister, &c.

9th, 10th, and 11th. There was no change, except that the pulse was becoming a little frequent. His mind was entire. Some pain of the back was at times mentioned, but it was not severe, and he made no other complaint. Perfect palsy of the limbs continued, and the numbness was extending upwards upon the abdomen.

12th. The numbness was extending upon the thorax: there was very little complaint of the back, but acute darting pains were complained of extending along both arms. The sore on the head being examined, and the opening enlarged, the bone was found carious, and some matter was discharged from it by a very small opening. In consequence of this appearance, a perforation was made by a small head of a trephine, but no disease was found beneath the bone. In the evening, his pulse having become more frequent, further bleeding was employed with relief.

13th. No change; his mind was quite entire, and he made no complaint: stools involuntary.

14th. The urine came off without the catheter, on raising him up into an erect posture. Pulse frequent and feeble; strength sinking. He died in the night, having continued quite sensible until about six hours before his death. There never had been the least attempt at motion of the lower extremities, but the sensibility remained.

Inspection. In the brain all was quite sound, except some old thickening of the dura mater in the neighbourhood of the diseased bone. The bone was carious and very thin to the extent of a half-crown piece: around this portion it was thickened, especially on one side, where it was fully double the natural thickness. There was no effusion in the head, and no appearance of any recent disease.

In opening the spinal canal, some purulent matter flowed out during the sawing, from about the middle of the dorsal region; and one of the vertebræ at that place was found considerably carious. The canal being opened, there was found most extensive deposition of flocculent matter, of a purulent appearance, on the outside of the membranes of the cord: it was most abundant for some inches about the lower part of the dorsal region, but likewise extended upwards to the fourth cervical vertebra. The dura mater of the cord being laid open, bloody sanious fluid was discharged from beneath it; and the pia mater was found highly vascular. The substance of the cord was found most extensively destroyed in its structure along nearly the whole extent of the dorsal portion. The anterior columns of this part were completely disorganized and broken down into a soft diffluent pulp; on the posterior part, the cord was more entire. When the whole cord was taken out and suspended, it hung together by the posterior columns of the dorsal portion, while the anterior part of it fell off entirely in a soft diffluent state. The parts above and below the diseased portion were quite firm and healthy.

CASE II. A man, aged fifty-six, in the last week of March 1823, was much exposed to cold in travelling on the outside of a coach: after which, he was seized with pain of the right arm and leg, most severe about the shoulder, but affecting the whole side; and there was considerable headach. He soon perceived some loss of power of the affected limbs, which began at the upper part of the arm, and extended downwards so gradually that he was able to write distinctly, after he had lost the power of raising the arm or bending the elbow. The leg then became affected in the same gradual manner, and, after about ten or twelve days from the commencement of the disease, the whole leg and arm had become completely paralytic. Some pain continued in the parts, and was sometimes severe, especially in the leg. About this time he was first seen by Dr. Moncrieff, who found the pulse ninety-six, and rather sharp. He was quite sensible, and still complained of some headach, and of pain extending from the shoulder along the affected arm and leg. Repeated bloodletting, blistering, purgatives, &c. were employed, and the headach was removed. The other symptoms continued as before; the right leg and arm were completely paralytic, and sometimes very painful; pulse eighty-four, and rather weak; his mind quite entire. He continued in this state till about the 26th of April, when the left arm became paralytic rather suddenly: it did not, however, become so completely motionless as the limbs of the right side, and the left leg was not at all affected. The pulse was now feeble, and his general appearance expressive of exhaustion. I saw him first about this time. There was slight delirium, which however passed off again; and he continued quite sensible, and even cheerful, without any pain, except occasionally in the right leg, till the 7th of May, when he became again delirious; the pulse 120, and weak. On the 8th, he lay in a state of stupor, muttering incoherently, but answering questions distinctly when he was roused. He died on the morning of the

9th, having lost his speech a few hours before death. For the last eight or ten days there had been extensive gangrene on the sacrum.

Inspection. Every part of the brain was found in the most healthy state. Much bloody fluid was discharged from the spinal canal into the cavity of the cranium before the spine was laid open. On laying open the spinal canal, the cord was found in a state of complete ramollissement, from the second to the last cervical vertebra; the parts above and below were quite healthy.

The following case shows the disease running its course with much greater rapidity, and with a different train of symptoms.

Case III. A boy, aged seven, had been indisposed from the 18th to the 20th of May, 1823, but so as to attract little notice. There had been some headach and slight feverishness, for which he took purgative medicine, and on the morning of the 22d he seemed almost well. About two o'clock in the afternoon of that day, he was seized with severe and general convulsions. I saw him soon after this, and found him confused, incoherent, and partially comatose; the pulse sixty and weak; face pale; the bowels were slow, and some worms had been passed. The usual remedies were employed with little effect.

23d. In the morning he was partially comatose, the eye fixed and insensible. In the course of the day he became less comatose, but incoherent, with much talking and screaming; complained of headach, and was impatient of light. In the evening there was slight appearance of squinting, and in the night some convulsions; pulse very variable, being sometimes rapid and sometimes slow; the bowels were very obstinate, but yielded to repeated doses of croton oil.

24th. Seemed much better: eye natural, face pale, pulse 120, bowels kept open by the croton oil. He was quite sensible, and said there was still some headach, but did not appear to suffer. He continued in this favorable state until early in the morning of the 25th, when the convulsions returned with much severity, after which he sunk into a low oppressed state, and died early in the afternoon.

Inspection. There was no effusion, and no appearance of disease in the brain. On removing the brain, a considerable quantity of fluid flowed from the spinal canal; and, on laying open the canal, there was still a good deal found between the cord and the external membrane. The cord was healthy at the cervical portion, but in the upper part of the dorsal region it was remarkably softened and broken down. This appearance extended for several inches, but varied in degree. At one place a complete separation took place in attempting to raise the cord, the part falling down into a soft diffluent pulp through its whole diameter. From the middle of the dorsal portion it was quite firm and healthy. The inner membrane of the cord was dark coloured, highly vascular, and showed evident marks of inflammation at the part corresponding with the softened portion of the cord.

Cases of Hematosis. By Dr. Samuel Jackson. (*American Journal of Medical Sciences.*)

A deficiency or excess of blood, it is well known, may exist, constituting Anemia, and Hyperemia or plethora, and be productive each of peculiar phenomena. But a deficiency or excess of some one of the different elements of the blood may also prevail, and be the cause of particular states of the economy, or generate special symptoms, amounting to a pathological condition. In the highly marked lymphatic temperament, the watery and albuminous principles predominate over the fibrinous or globular and colouring elements, and modify, in consequence, the phenomena of disease. The highly sanguine temperament presents the opposite extreme, and fibrin or globules, and the colouring principles, are in excess, equally impressing a peculiarity on morbid phenomena. The circumstance, however, to which I now wish to attract attention, is the sudden diminution, amounting almost to a disappearance, of the hematosine or colouring principle of the blood.

The nutritive sanguine humor is formed from the nutritive principles furnished by the aliment, which are concocted into blood by the various processes through which they pass. In what manner hematosine, or the colouring principle, is formed, what organ is charged with its production, or what is the process creating it, we have no knowledge. Respiration appears to have some agency in its formation, yet this function may rather be presumed to perfect the process of its production, than to form it exclusively; for in the instances in which this principle was deficient, which have met my observation, respiration was wholly unimpaired.

Case I. Miss M'C———, aged nineteen, lymphatic temperament, hair of light brown, eyes a light grey, complexion fair, full embonpoint, skin soft and of delicate texture, limbs round and smooth, chest expanded. She has enjoyed uniformly good health; menstrual function commenced without difficulty, and has continued until the present period, uninterruptedly, though always very slight.

After unusual exertion, she noticed that slight exercise produced lassitude and fatigue, excited palpitations of the heart, a throbbing, obvious to the eye, above the sternum, and on the right side of the neck, and caused a sense of beating in the head, and through the limbs to the ends of her fingers. These symptoms increased, and the pulsation above the sternum and on the side of the neck, became permanent, although feeble when she was sitting. The augmentation of the symptoms finally arrived to such a degree as to prevent all active exertion.

I visited her on January 4th, 1830. As she had been perfectly quiet, nothing could be observed but a sallowness of complexion, and a slight throbbing above the sternum and right clavicle. I explored the chest with the stethoscope. The respiration was clear and distinct in every region of the thorax; indicating, as might have been expected from her finely expanded chest, an admirable pair of lungs. The rythm of the heart was natural; the impulse rather strong, and sound somewhat louder than usual, but not to an extent that could be regarded as morbid, or belonging to organic change. No purring sound, throbbing, or uncommon noise, under the right clavicle or superior end of the sternum, (marks of aneurism,) could be heard. The appetite was excellent, diet too full, digestion perfect; bowels perfectly regular, and evacuations natural. The menstrual discharge, which had declined rapidly since the invasion of the present symptoms, had not returned at the last period, the first of the month. The tongue was clean and moist, but was without colour, as were the lips, gums, and inside of the mouth; the pavilion of the ear, when held to the light, was nearly diaphanous. When quiet, she experienced not the slightest inconvenience, and would not, she remarked to me, be conscious of any thing unusual in her situation.

I now requested her to ascend a flight of stairs, and return. On entering the room, she threw herself into a chair, with an exclamation that "she was nearly gone." She exhibited a picture of exhaustion: her limbs hung relaxed, her head fell on her shoulder, she panted violently for breath; the throbbing above the sternum and on the sides of the neck was violent, but strongest on the right; the heart palpitated excessively; its contractions were tumultuous, so as not to be counted, and were sharp and strong. This state continued about five minutes, when it began to decline, and gradually terminated. I examined with great care the right clavicular region, to discover the existence of a tumor, and, though the pulsation was very distinct to the feel, yet nothing like a tumor could be detected.

From a review of the case, I could not arrive at a satisfactory conclusion. I was strongly disposed to regard it as an aneurism or dilatation of the aorta, at its arch, or of the innominata. It resembled in many respects the cases of aneurism recorded by Mr. WARDROP, especially his fourth case: yet it exhibited many features of anemia; but, as no losses of blood had been sustained, the symptoms could not well be attributed to that cause. In this uncertainty, I limited my directions to a reduction in some degree of the diet, to take a mild cathartic, and to keep perfectly quiet.

The symptoms continued without abatement, and, having a consultation with a friend who is engaged in surgical practice, I invited him to examine this case. After an attentive observation of the phenomena it presented, he was decidedly of opinion that an aneurism of the aorta or innominata was the cause producing them. On the 10th of January, acting on the impression of the existence of an aneurism, I directed V.S. to ten ounces, with an abstemious diet.

The next day, 11th, all the symptoms were greatly aggravated. She was now scarcely able to leave her chair; every attempt to walk about the room excited panting and palpitations; the throbbing in the neck was more violent, and it was with difficulty she was got up stairs to bed. The blood drawn consisted almost entirely of serum, the crassamentum being very small. To relieve the urgency of the symptoms, warm wine whey, with a calming potion were ordered. I had no longer a doubt, from the result of the bleeding. that the case was one of anemia, or what is nearly of the same nature, a deficiency of the fibrin and hematosine of the blood. The following powder was prescribed: Phosphas Ferri, gr. v.; Sulph Quinæ, gr. ss. every four hours; the diet was made more generous.

January 14th. Symptoms diminishing; palpitations lessened. Powders continued.

21st. Throbbing in the neck and above the sternum has diminished very considerably; she can now ascend and descend the stairs without the distress and faintness formerly experienced, though palpitations continue to be induced. Continue powders.

28th. Progressive amendment; menstrual discharge returned; colour returning to the cheeks, lips, and tongue. Continue treatment.

February 10th. Symptoms have entirely disappeared; complexion restored to its usual healthy aspect. Was last night at a dance, and experienced no inconvenience from the exertion. Omit the treatment.

March 10th. Health continues perfect; exercises daily, and suffers from none of the former symptoms.

Remarks. The symptoms of the above case would probably be accounted for by many as nervous. But this term, unless it be defined, and a positive idea attached to it, is no explanation of the phenomena, and can give no clue to a plan of treatment. It is not probable that they had their origin in the nervous system, for the mind and feelings were perfectly tranquil. The subject of the case is a girl of excellent sense, has never shown any tendency to a morbid sensitiveness of nerves, and moral impressions produced but slight effect in exciting the symptoms. Besides, we do not know that nervous affections, as they are termed, can occasion the disappearance of the hematosine or colouring principle of the blood.

Taking a review of the whole of the preceding case, it appears to me evidently to have depended on a morbid alteration in the proportion of the constituent elements of the blood, the fibrin and hematosine or colouring principle being deficient.

PRACTICAL MEDICINE.

On the Employment of Metallic Mercury in Cases of Volvulus. By M. **Ebers.** (*Journ. der Pract. Heilk.*)

The author gives a rapid sketch of the various means that have been recommended in intestinal intus-susception, and then enters more at length into an account of the employment of quicksilver in such cases. In the use of this remedy there is much less danger than has been supposed by many physicians; but it is doubtful whether it is equally applicable when the superior portion of intestine has slipped into the inferior, as when the reverse has happened. It would appear that it can only be of use when a lower portion of intestine is invaginated in an upper: but as it is absolutely impossible to distinguish this difference during life, we must take the chance, when symptoms occur of such a nature as to demand the treatment referred to.

Two cases are related. In the first, a labourer of advanced age, who, after a very active life, had become comparatively indolent, was subjected to frequent attacks of pain in the belly, with constipation. Various remedies were prescribed; but at last, probably from a severe fit of indigestion. the pains increased very much in severity, and were not relieved by any treatment. Frequent vomiting came on, and at length fecal matter was discharged by the mouth. Every symptom announced the speedy dissolution of the patient, and, as a last resource, it was determined to give quicksilver. One ounce was given, and immediately after a cup of broth. Two hours after, two ounces were administered. The vomiting now ceased, and the patient slept calmly. When he awoke he still complained of pain, but it was much diminished. He was persuaded, with some difficulty, to take a third dose of the remedy. In about an hour after this last dose, a loud borborygmus was heard in the belly; the patient was extremely restless, screamed out violently, and it was believed he would quickly die: but suddenly he rose from his bed, and discharged from the anus an immense quantity of fecal matter, and in the course of a very short time he had several stools. The mercury was seen divided into small globules in the evacuations. The cure was now completely effected.

In the second case, a woman had suffered violent colic for many days, in consequence of obstinate constipation. She vomited incessantly, and discharged fecal matter by the mouth, together with a brown chocolate-coloured mass. Her face exhibited great anxiety; skin cold, pulse small and rapid, great debility. The danger was imminent. Great tenderness over the whole surface of the abdomen, which had a doughy feel, from the immense accumulation of feces. The patient was in a constant state of agitation, and uttered the most piercing cries. A warm bath and clysters were tried, without benefit. Every medicine was immediately rejected, with violent vomiting. M. **Ebers** now determined to give four ounces of quicksilver at a dose. In a few minutes after having taken it, she became more tranquil, although the pain continued with equal severity. In an hour, two ounces more of the metal were given, and the patient soon fell asleep. She had not dozed more than half an hour, when she awoke in an apparently dying state; but at the same moment she had a very copious and fetid evacuation, which was followed by several more. In each evacuation mercury was detected. After this free action upon the bowels, the patient was completely relieved, and in a few days she was restored to her accustomed health.

It will be observed, that in both these cases the mercury acted in a similar manner. At first there was a state of comparative calmness after taking the remedy, and then sleep. When the patients awoke, the symptoms were very alarming for a short time, but copious stools followed, and health was quickly restored.—*Bulletin des Sc. Medicales.*

Acupuncturation in Rheumatism. The following interesting cases, showing the striking effects of acupuncturation in the removal of rheumatic pains, are related by Dr. Jos. Bernstein of Warsaw, in Hufeland and Osann's Journal der Practischen Heilk., August 1828.

Case I. N., a man, 54 years old, of a sound constitution, from exposure to cold during the winter, became affected with a violent rheumatic pain of the upper part of the arm. A variety of remedies were employed without effecting any permanent removal of the disease. Six months had elapsed since the commencement of the attack, when Dr. B. was called in. The affected shoulder was neither red nor swollen, the patient could move the arm easily forward and without pain; but by the motion of the arm either upwards or backwards the pain was greatly increased. The pain was not augmented by pressure. The health of the patient was otherwise tolerably good. A large blister was directed to the arm in the neighbourhood of the deltoid muscle, at which place the pain was the most severe during the motions of the arm; the blister was kept open for four weeks, at the termination of which period an evident diminution of the disease was experienced: circumstances relating to the patient's occupation now rendered it necessary that the blistered surface should be allowed to heal, although the disease was not yet entirely removed. The patient continued six weeks without medicine of any kind: the motions of the arm upwards and backwards were still painful. Acupuncturation was then resorted to. On the first day, five needles were inserted near the insertion of the deltoids: three, 11-2 inches, in a perpendicular direction, and two, after being passed to the same depth perpendicularly, were then directed obliquely in the course of the muscles of the arm. After 15 minutes the needles were removed in the same direction in which they were inserted. The introduction of the needles caused little pain, but their extraction somewhat more. The patient was now directed to move his arm; and he was of opinion that the disease was already evidently diminished. On the second day, less pain was felt at the spot where the needles were inserted, but still some was experienced when he attempted to raise his arm upwards. Five needles were again inserted and left in twenty minutes. The pain was evidently diminished. Third day, the pain was felt lower down, and the needles were here inserted; pain diminished. In this manner constantly for two weeks was the operation repeated on different parts of the arm at which the pain was experienced, and finally the disease was entirely removed. "Seven months have now elapsed," says Dr. B., "and notwithstanding this individual has been exposed to cold and dampness, there has been no return of the pain."

Case II. A. L., twenty-seven years old, of a sound, robust constitution, contracted, by exposure to cold, a rheumatism of the right lower extremity, extending from the hip-joint and glutei muscles to the calf of the leg. Its removal had been attempted by diaphoretics internally, and frictions with the volatile liniment to the seat of the disease: by this treatment the pains were increased rather than diminished. Dr. B. saw the patient about six weeks from the commencement of the attack: the pulse was full, not accelerated, but very strong; venesection to 12 oz. was directed, to be followed by 20 leeches to the affected parts. By this the pain in the thigh and neighbourhood of the hip-joint was very considerably diminished, but not entirely removed: the patient also complained of a weakness of the foot, preventing him from treading upon it with firmness. He was now placed upon a proper diet and regimen, with no other medicine than was necessary to preserve an open condition of his bowels: after several days a pain was experienced extending more into the hollow hip; the patient could not walk without pain; he could, however, tread upon the sole of the foot, and stood firmly on both legs, but could not turn the foot on the affected side, in all directions, without some pain. No flattening of the buttock on the side diseased. A blister was directed, but objected to by the patient; acupuncturation was then proposed, aud agreed to: ten needles were inserted, near the hip-joint, in a perpendicular direction, and allowed to remain in fifteen minutes: immediately upon their extraction, a diminution of the pain of the hip was experienced. On the next day, pain of the hip less, but it was more severe in the buttock: here ten needles were introduced, and five at the hip-joint. Third day, hip free from pain, and considerably less pain was also felt at the buttock: for twelve days a dozen neeoles were daily inserted at different parts of the thigh and leg; and by degrees the pain was entirely removed. " Ten months have now elapsed, and the patient has had no return of the disease. It is proper to remark, that, during the whole time acupuncturation was employed, the patient followed his usual occupations."

Case III. W. S., twenty-five years of age, had been for twelve months occasionally affected with a pain of the head, particularly of the left temple. The pain continued usually for a day or two, and was often so severe as to prevent the patient from attending to his business. Subsequently the pain recurred regularly every month; it was preceded by no chill, nor attended by any fever or perspiration: the urine was, however, clouded. The case was at first treated for a Febris intermittens larvata: the patient happening, however, to witness the operation of acupuncturation, requested that it might be tried in his case; he was accordingly directed to remain without medicine until the next paroxysm occurred, when a fold of the skin being raised at the seat of the pain, through it were inserted six steel needles; after fifteen minutes they were removed, and it was found that the pain had entirely disappeared. The ensuing month the pain again returned, but with less severity; the introduction of the needles was repeated, and in ten minutes the pain was entirely gone, nor has it again returned, although eight months have elapsed since the operation was last performed: previously, for a twelvemonth, the pain recurred regularly every month.

Case IV. This was an inflammatory affection of the left arm, extending from the shoulder to the elbow, and produced by the patient having, three days before, carried a basket heavily loaded with wood up a steep hill. By the advice of a surgeon, she had lost three cups of blood, had twenty leeches applied to the affected arm, followed by frictions with the volatile liniment. When Dr. B. saw the patient, the arm was greatly swollen and red; the slightest touch, and every motion of the limb, increased the pain; the pulse quick, full, and hard. The patient was upwards of forty-five years old, of a robust constitution, and had previously enjoyed good health. Notwithstanding the symptoms of this case appeared to call for the continuance of depletory measures, yet several circumstances induced Dr. B. previously to try the effects of acupuncturation: fifteen needles were accordingly inserted at the seat of the disease, in various directions; when, after fifteen minutes, they were withdrawn, the patient declared that her sufferings were much lessened, and she was able to move the arm freely. She besought Dr. B. to permit her to return the following day, in order that, by a repetition of the operation, her pain might be entirely removed. Nothing more, however, was seen of this patient for two months, when she came to the doctor's house in company with another patient. She then stated that the day after the operation, all pain having ceased, and the free motion of the arm in every direction having returned, she had therefore not thought it necessary to trouble the doctor. No remedy of any kind, excepting the acupuncturation, had been employed.

Case V. K., a man about forty years old, had for two years laboured under a pain of the loins, which finally arose to such a height as to prevent him from following his business. Every motion of the lower extremities augmented the pain, and a recumbent posture was the only one in which any ease could be obtained. There was no fever, the appetite was diminished, the tongue covered with a white fur; great tendency to constipation. An interrupted state of the circulation through the abdominal vessels was evinced by the sallow complexion, uneasy feelings in the abdomen, frequent griping pains in the region of the stomach, and the occasional fits of peevishness to which the patient was subject, without any external cause; no hardness or swelling in the abdomen could be detected. The patient was, during three weeks, treated by gentle resolvents, and an occasional cathartic. Under these remedies his general health improved; tongue cleaner, appetite restored, and the inclination to peevishness removed; but the pain in the loins, was in no degree abated. For two weeks all remedies were discontinued, at the end of which time, the pain still continuing, five needles were inserted on each side of the loins; after fifteen minutes they were withdrawn, and the pain was found lessened at the place of their insertion, but removed lower down. For ten days the operation was repeated daily on that part to which the pain was successively removed, and the patient was then enabled, without inconvenience, to bend and turn himself in every direction, which he had been unable to do for two years. "Twelve months have now elapsed since the last performance of the operation, and the condition of the patient is still the same."

Case VI. A man, about forty years old, had for eight weeks been affected with a chronic rheumatic inflammation of the left eye, with opacity of the cornea. The usual remedies had been employed without effect. When Dr. B. saw the patient, he still complained of pain in the head and eye. Blisters were directed to the back of the neck, to the fontanels, and to both arms, with various remedies internally; these produced no effect. For two weeks all medicines were suspended: acupuncturation was now performed, and the inflammation of the eye and pain of the head were entirely removed; the opacity of the cornea was also considerably diminished. The operation was repeated daily for two months, to ascertain its effects upon the latter, when, to the astonishment of the doctor, he found that the spot upon the cornea was reduced to less than one half its original size, and its opacity so much diminished that it interfered very little with the patient's sight.

Cases of Amenorrhœa treated with Strychnia. (Bardsley's *Hospital Facts, &c.*) As amenorrhœa is a frequent source of several of the most troublesome affections to which females are liable, it is of importance to be able to name any new remedy which will be found occasionally serviceable in promoting a regular and natural flow of the catamenia. Previously to my experiments with the strychnia in this disease, I had been in the habit of employing aloes more extensively than any other medicine; and I can add my testimony to that of the venerable Dr. Hamilton, in favor of the utility of purgatives in exciting the action of the uterine vessels. In many cases, I have succeeded in obtaining a renewal of the menstrual discharge, by a steady but active administration of the aloetic pill alone.

It is foreign to my purpose to enter upon an inquiry into the causes and consequences of amenorrhœa, as my principal object is to state facts; I shall therefore proceed to illustrate the successful administration of strychnia in my hands, in some instances of suppressed menstruation.

Case I. Phœbe Lowe, thirty-three years of age, unmarried, admitted an out-patient, June 4th, 1825.

She stated that she had not menstruated during the last five months. She attributed the obstruction of the menses to cold. She was languid and weak. Her appetite was impaired, countenance pallid, and strength diminished. Bowels rather costive; pulse eighty-two; tongue white. Having brought the bowels into a natural state, by the exhibition of purgatives, I commenced with the sixth of a grain of strychnia, three times in the day.

June 16. She has not as yet derived any benefit from the alkali. Dose to be increased to the fourth of a grain at the same intervals.

July 12th. Her general health was much improved, and her appetite is better. She has experienced rather painful sensations in the hypogastric region, during the last few days. To continue.

24th. The menses have appeared in small quantity since the last report. The uneasiness in the hypogastrium has left her. To continue.

30th. She improves in health daily, and is anxious to follow her usual employment in the cotton factory. Her appetite is very good, countenance more lively, and strength greatly increased. I desired her to suspend the further use of the medicine, giving her a strict charge to call at the Dispensary, and to inform me if the catamenia had become regular. Agreeably to my request, she attended on the 14th of October, and said that she had menstruated twice rather copiously since she saw me. Discharged cured. This woman married shortly afterwards, and is now the mother of two children.

Case II. Ann Gilldike, aged thirty years, unmarried, admitted an out-patient, 24th February, 1825.

This woman had imprudently exposed herself to wet and cold for several hours when the menses were last present, and they have not since returned. Her complaint is of six months' duration. Countenance pale, body emaciated, appetite impaired, bowels natural. She stated that she had been under medical treatment for more than four months, but had not derived any benefit from the remedies employed. I immediately commenced with the sixth of a grain of strychnia three times daily.

March 14th. No change in her symptoms. Dose of alkali to be increased to the fourth of a grain, at the same intervals.

29th. She finds herself considerably better, and, judging from her present feelings, thinks that the catamenia will shortly appear. Bowels regular, spirits cheerful. To continue.

There was a slight uterine discharge on the evening of the 21st, but it ceased early on the following morning. Her looks and general health are surprisingly improved. To take half a grain of the alkali twice daily.

May 24th. On the 18th the catamenia appeared, and continued until the 22d: their colour and quantity were perfectly natural. She makes no complaint but of debility. To persevere with the strychnia, in the dose of a fourth of a grain three times daily. She attended at the Infirmary on the 6th of July, and mentioned that the menses had occurred at the usual time, and that she felt herself as well as at any former period of her life. She was discharged cured. This patient has continued well ever since.

SURGERY.

Treatment of Inverted Nails. (*Révue Medicale.*) Cases of this kind appear trifling, and are sometimes very unwarrantably neglected, both by the patient himself and the surgeon, until great suffering arises. Various modes of practice have been adopted; amongst others, evulsion of the nail, which necessarily gives great torture to the patient, and has been known to destroy him. The following plan is employed with success by Dr. BIESSY, of Lyons. He scrapes the healthy portion of the nail to an extremely thin layer, and then repeatedly touches it with lunar caustic, until the anterior portion shrivels, and separates spontaneously from the flesh beneath. Small bits of lint are then inserted between the nail and the flesh, until the new nail has become sufficiently large, which is usually the case in twenty or thirty days after the operation.

Imperforation of the Cervix Uteri: Operation successful. DELPECH relates this case. A young woman, ætat. twenty-two, who had never menstruated, was attacked at the age of seventeen with colic, which gradually increased in severity. She became pale, emaciated, melancholy, and lost her appetite. Twice in the course of one year the pains in the abdomen, which always commenced in the hypogastric region, were so severe as to endanger the life of the patient; they gave rise to violent fever and delirium. Violent paroxysms of hysteria followed. M. Delpech was now consulted. In the hypogastrium, a spheroid and moveable tumor was felt, which was very tender, when touched; it impeded the motion of the patient, and rose as high as the umbilicus. It was presumed that this tumor was the uterus distended by the retained menses, but no trace of the cervix or os uteri could be detected. A puncture was made in the most depending part of the tumor in the vagina, and about one pint and a half of a brown inodorous fluid was discharged, of an oily consistence. The tumor was now diminished to half its former size. The discharge continued for several days, and the opening that had been with a trocar could be felt in the vagina. An irritable state of the breasts, which had before existed, was now completely relieved. The patient has menstruated twice since the operation, and no unpleasant symptoms had occurred. (*Révue Medicale.*)

Contraction of Parts after Burns. M. DUPUYTREN lays it down as a principle, that in cases where fibrous bands, resulting from unfavorable cicatrization, impede the motion of one or several articulations, the parts should be set at liberty by transverse incisions, without destroying the cicatrix itself. Surgeons, in general, adopt the mode of removing the original cicatrix, and then they endeavour, by artificial efforts, to form one more regular, which may not interfere with the action of the parts implicated in the injury. The following is an example of his practice.

A child, nine years old, was admitted into the Hôtel Dieu, with a deformity of the hand, the consequence of a burn which had happened a considerable time before. The little finger of the left hand was bent forward, and was confined to the palm by a membraniform bridle, the folds of which terminated in a sort of fibrous cord, which extended between the first and second phalanges. The ring finger was less burnt, but was also attached to the palm of the hand by a falciform bridle, which made it describe a regular segment of a circle. The connecting band extended from the tip of this finger to its metacarpal extremity, and was about one and a half inches in length. The middle finger was bent forward like a hook; its free extremity corresponding to the articulation of the first with the second phalanx. A tight and thick bridle fixed it in this situation, and prevented its extension. The object here was evidently to extend the fingers, and to retain them in that position until new and regular cicatrices had formed. M. Dupuytren made above and below each fibrous band a transverse incision, which divided the whole substance of the skin. He then extended the fingers, dressed the wounds, and applied a broad splint upon the back of the hand, ensuring the constant extension of the fingers by a bandage. The wounds cicatrised, and their edges remained apart by the formation of a new cutaneous tissue. The exuberant fleshy granulations were destroyed with lunar caustic, and at the end of a few days the splint was removed, when the new cicatrices, if not completely formed, were in such a state as to warrant their being left to the efforts of nature. The success of the case was very gratifying.—*Journal Complémentaire, &c.*

INTELLIGENCE.

MEDICAL SCHOOL, KING'S COLLEGE, LONDON.

THE following appointments have been made: Mr. MAYO, professor of Anatomy and Physiology; Mr. GREEN, of Surgery; Dr. HAWKINS, of Medicine; Dr. BISSETT HAWKINS, of Materia Medica. The chairs of Chemistry and Midwifery are not yet filled. The Demonstrator, we understand, will be appointed at the recommendation of the Professor of Anatomy.

King's College will open in October 1831: In the interval, Mr. Mayo will continue to deliver lectures at Great Windmill street. The noble museum room in Great Windmill street, which has contained in succession the collections of Dr. HUNTER, Dr. BAILLIE, Mr. WILSON, and Mr. BELL, is likely to be occupied, during the ensuing winter, by the museum of King's College. The latter, it is said, will be commenced by the purchase either of SOEMMERRING's collection or of Mr. MAYO's, which, though small, contains several of the rarest and most beautiful specimens in London.

The school of Windmill street will probably not be closed, when Mr. Mayo leaves it; but is likely to fall into the hands of a zealous and talented pupil of Mr. MAYO's and Mr. BRODIE's. We conclude, therefore, that Mr. Mayo's pupils will have the option, when King's College opens, either of following him thither, or of remaining to pursue their studies under his successor in Windmill street.

Dr. JAMES JOHNSON has been appointed physician extraordinary to the King.

Mr. ARNOTT has been appointed surgeon extraordinary to her Majesty. We stated by mistake in our last Number that Mr. A. was attached to the medical establishment of the King.

Mr. CRADDOCK is appointed apothecary to his Majesty's household.

The appointment of Dr. WARREN as physician extraordinary to the King, has been cancelled at his own request.

His Majesty has been graciously pleased to bestow on Sir **Henry Halford** the Grand Cross of the Guelph.

Sir **Gilbert Blane** has resigned his appointment as physician to his Majesty, in consequence, it is said, of the place in which his name appears in the list published in the official Gazette.

Henry Earle, Esq. surgeon to St. Bartholomew's Hospital, has been elected one of the Council of the Royal College of Surgeons.

Mr. **Howship** will commence his next course of Surgical Lectures at his house, on the first Monday in October, at eight in the evening. The weekly examination of the students will be held every Saturday evening, from nine to ten o'clock.

Mr. W. B. **Lynn** has addressed a letter to the Royal College of Surgeons, stating that he "renounces all intention and desire" to become one of their body, in consequence of his friend, Mr. J. R. **Elmore**, having been passed over at the recent election of a member. That Mr. Lynn had the right to remonstrate with the College for the act of injustice which he assumes them to have committed, we do not deny; but we regret, for his own sake, that his letter was not written with greater respect and temperance. The step which Mr. L. has taken appears to us altogether premature and injudicious. Had he waited till he himself had been elected one of the Council, he would have escaped all suspicion of declining an honour from the fear that he might not have the opportunity of accepting it.

BIBLIOGRAPHICAL NOTICES.

Appendix to the Second Edition of a Series of Observations on Strictures, &c.

By R. A. **Stafford.**

The continued success Mr. **Stafford** has met with in the treatment of strictures by the lancetted stilettes, now enables him to add eighteen cases to those he before published. Mr. Stafford has now operated on upwards of forty cases of permanent stricture, "of the worst description, without a single failure." He assures us that in no instance has there been a false passage made, nor has the cutting through the contracted part either caused pain, hemorrhage, inflammation, or any other unfavorable symptom. The hardened structure which composed the stricture has always been absorbed, and he has never yet heard of a return of the complaint after this treatment. In addition to the unvaried success in the use of these instruments in stricture, Mr. S. has, on two different occasions, divided through an enlarged third lobe of the prostate gland, which on the one hand caused total, and in the other partial, retention of urine. In both these cases the disease subsided, and the patients recovered the complete power of the bladder.

Mr. Stafford states that there is but very trifling inconvenience caused by the use of the instruments. He has not always found it necessary, as he formerly recommended, to confine the patients, to apply leeches, or to leave the catheter after the operation in the urethra. "They have, on the following day, usually gone about their occupations, and it has only been necessary to pass a bougie daily for a short time, and afterwards three times a week, until the cure has been completed."

We must refer to our Journal for September 1828, and June 1829, for an account of the former editions of Mr. Stafford's work on the subject of Strictures of the Urethra. As in the latter Number several cases are detailed which were successfully treated by the lancetted stilette, we do not think it necessary to give any of the cases from the present Appendix.

We must once more be allowed to urge the necessity for the utmost caution in the use of these instruments.

Mr. **Wardrop** will be much gratified to hear that a brief essay will shortly be published on the subject of Cataract. The means of detecting the kind of cataract, or disorganization of the eye, *before* an operation, will be particularly pointed out. A case will be related, the details of which are very curious, and which cannot fail to be interesting to oculists in general. It may be a satisfaction to Mr. Wardrop to be informed that the same practitioner, the *presumed* "party writer," still continues in attendance upon this patient, and that she has been seen by some experienced oculists, who are of opinion that something may yet be done to relieve her. When the case is completed, it will be immediately given to the profession, together with a few comments which will convey some *moral* as well as medical instruction.

In the press, the Natural History of Poisons, vol. i. with a Plate. Contents: Physiology of Life, Secret and Slow Poisons, Epidemic and Endemic Diseases, Contagion, American and Arrow Poisons, Serpent Poisons, Pleasures and Pains of Opium. By **John Murray**, Esq. F.L.S. &c.

LIFE OF DR. FOTHERGILL.

The father of John Fothergill was a member of the estimable society of Quakers, and resided at Carr-End, in Yorkshire, the family estate of a preceding generation; where this excellent man was born in the year 1712. He was one of many children, a circumstance which is generally, and with justice, considered favorable to the developement of talents. His chief literary education was imbibed in the school of Jedburgh, in Yorkshire, a seminary which has acquired both classical and mathematical reputation. About the age of sixteen, he was apprenticed to Mr. Bartlett, an eminent apothecary at Bradford, who had previously been the master of Dr. Hilary. His sagacity and assiduity soon induced his intelligent preceptor to permit him to visit and prescribe for his patients. On the expiration of his term, he repaired to Edinburgh, at a period when the professorial chairs were occupied by Monro, Alston, Rutherford, Sinclair, and Plummer, all students of the Boerhaavian school, and whose merits have been recorded, by Fothergill himself, in an account which he published, in after-life, of Dr. Russell, his contemporary and associate. The eminent Monro discovered the powers of his pupil, and urged him to reside sufficiently long to obtain the doctorate—for till then he had only intended to qualify himself for the profession of an apothecary. He used to take notes of the heads of each lecture, and on returning to his lodging, translated into Latin those which had been given in English; he then carefully consulted and compared the opinions, both of the ancients and the moderns, on the subject of the lecture, to which he added such remarks upon each as his reading and reflection suggested. In his clinical studies he followed a similar plan; when any case occurred to fix his attention, he examined the various authorities which bore upon the point and formed a comparative result from their evidence and opinions. Many years afterwards he recommended this method to Dr. Lettsom, in a letter which concludes by enforcing "the careful perusal of Hippocrates, and also of Aretæus and Celsus; one can never be too well acquainted with the knowledge contained in the first, nor with the elegant expressions of the last." These modes of study are not peculiar to

Fothergill, but they are important to remark in tracing the steps by which an obscure man attained independence and distinction, and strengthen the evidence of the efficacy of earnest reading in a profession which is by many supposed to depend for success on natural abilities, or worldly industry, or mere personal observation; whereas, none more requires all the assistance that can be derived from the experience of others. Monro, in the fourth edition of his Osteology, which appeared in 1746, acknowledges the aid which he had obtained from his young pupil. In addition to his other occupations, Fothergill preserved a diary of his actions and occurrences, in Latin. He graduated in 1736, and chose *the use of Emetics* for the subject of his thesis. He now came to London, the scene of all his subsequent eminence, and frequented the wards of St. Thomas's Hospital, where his application was equally unremitting. In 1740 he accompanied some friends on a short excursion to the continent, of which a brief sketch remains in a Latin letter addressed to his friend Dr. Cuming, of Dorchester. On his return he settled in Gracechurch street, and in 1746 became a licentiate of the College of Physicians.

The fertility of his mind now began to evince itself in some detached essays, among which we remark one "On the Origin of Amber," his observations on the Manna Persicum, and more particularly those "On a case of recovering a Man dead in appearance." It is possible that these last may have had some share in contributing to the establishment and regulations of the Humane Society, which was several years after founded by the exertions of Dr. Hawes and others.

A large practice rapidly rewarded the pains which he had bestowed on his education: as to his pecuniary means or early patrons little information remains, but it is certain that he acquired employment more early than the generality of his brethren: it is probable that the religious community of which he was a worthy member contributed something to the rapidity of his advancement. Nothing (says Dr. Lettsom) hurt his feelings more, than an estimate of the medical profession, formed upon lucrative advantages; he was ever averse to speak of his pecuniary emoluments: "My only wish," he declared, "was to do what little business might fall to my share as well as possible; and to banish all thoughts of practising physic as a money-getting trade, with the same solicitude as I would the suggestions of vice or intemperance." These were not mere words of parade: when the success of his practice had elevated him to the summit of his career, he still professed, and acted upon, the same generous reasoning. "I endeavour," says he, in a letter written several years afterwards, "to follow my business, because it is my duty, rather than my interest; *the last is inseparable from a just discharge of duty*; but I have ever wished to look at the profits in the last place, and this wish has attended me ever since my beginning." In another place he remarks, "I wished most fervently, and I endeavour after it still, to do the business that occurred, with all the diligence I could, as *a present duty*, and endeavoured to repress every rising idea of its *consequences*........ such a circumscribed unaspiring temper of mind, doing every thing with diligence, humility, and as in the sight of the God of healing, frees the mind from much unavailing distress, and consequential disappointment." These familiar effusions of a spirit which cannot be accused of imbecility or apathy, are the more interesting, because few of the distinguished members of the medical profession have bequeathed to us so explicit an avowal of the motives which animated or sustained them in one of the most rugged roads of human travel.

In 1748, Fothergill raised his reputation to a great height, by his "Account of the Sore Throat attended with Ulcers; a disease which hath of late years appeared in this city, and in several parts of the nation." A disorder of this kind had lately caused much havoc, and not least among the higher orders of society. Two nephews of the Duke of Newcastle had fallen victims to it, and its progress excited great alarm. Here Fothergill found an opportunity of bringing his penetration to bear on a topic of new and immediate interest, and he availed himself to the utmost of the favorable moment. He had observed that the methods of cure usually resorted to, such as bleeding, purging, and the medicines daily employed to remove inflammations, in general produced an injurious effect in this epidemic. It was confounded in ordinary practice with the common sore throat, or inflammation of the tonsils. Our author carefully distinguished the variety in the nature of the complaint, and in the progress of the symptoms, which were here usually of the typhoid kind, and presented a disposition to gangrene in the parts affected. His practice was temperate, yet not guided by any exclusive views; even gentle purgatives he found injurious, but clysters might be given in case of constipation. A gentle emetic was often prescribed; gargles, bark combined with the mineral acids, and various stimulants, formed the basis of the treatment. The Spanish physicians had pursued a somewhat similar plan in the visitations which they had experienced of this complaint. Fothergill uses the following expressions in summing up this subject: they will afford a specimen of his pathology. "The cause of this tendency (to putrefaction) is a putrid virus, or miasma sui generis, introduced into the habit by contagion; principally by means of the breath of the person affected. This virus, or contagious matter, produces effects more or less pernicious, according to the quantity and nature of the infection, and as the subject is disposed to receive or suffer by it. Putrefactive and malignant diseases, in common,admit of the most sensible and secure relief from discharges of the peccant matter, either upon the skin in general, or on particular parts of the body. The redness, and cutaneous efflorescence, in the present case, may be considered as an eruption of the like nature, and therfeore to be promoted by such methods as have proved successful in similar diseases. A cordial, alexipharmic, warm regimen has been found by experience to be of the most use in such cases." Called in on this occasion by many of the first families in the metropolis, he improved the opportunity so well, that he soon acquired a large income. The generality of medical men usually entertain a particular affection for some one or more branches of their professional studies, and the public has gained considerably by this occasional preference, which, while it does not necessarily diminish the attention of the individual to the ultimate object of his science, is sometimes the source of discoveries or institutions important to the community at large. Chemistry and botany were the favorite objects of his hours of relaxation or retirement. At Upton, near Stratford in Essex, he purchased an extensive estate, and furnished a noble garden, whose walls enclosed five acres, with a profusion of exotics, which he spared no pains in collecting. "At an expense seldom undertaken by an individual, and with an ardour that was visible in the whole of his conduct, he procured from all parts of the world a great number of the rarest plants, and protected them in the amplest buildings which this or any other country has seen. He liberally proposed rewards to those whose circumstances and situations in life gave them opportunities of bringing hither plants which might be ornamental, and probably useful to this country, or her colonies; and as liberally paid these rewards to all that served him. If the troubles of war had permitted, we should have had the Cortex Winteranus, &c. &c., introduced by his means into this country; and also the Bread-Fruit, Mangasteen, &c., into the West Indies. For each of these, and many others, he had fixed a proper premium. In conjunction with the Earl of

Tankerville, Dr. Pitcairn, and myself, he sent over a person to Africa, who is still employed upon the coast of that country, for the purpose of collecting plants and specimens. Those whose gratitude for restored health prompted them to do what was acceptable to their benefactor, were always informed by him, that presents of rare plants chiefly attracted his attention, and would be more acceptable to him than the most generous fees. How many unhappy men, enervated by the effects of hot climates, where their connexions had placed them, found health on their return home at that cheap purchase! What an infinite number of plants he obtained by these means, the large collection of drawings he left behind will amply testify; and that they were equalled by nothing but royal munificence, at this time largely bestowed upon the Botanic gardens at Kew. In my opinion, no other garden in Europe, royal or of a subject, had nearly so many scarce and valuable plants. That science might not suffer a loss, when a plant he had cultivated should die, he liberally paid the best artist the country afforded, to draw the new ones as they came to perfection; and so numerous were they at last, that he found it necessary to employ more artists than one, in order to keep pace with their increase. His garden was known all over Europe, and foreigners of all ranks asked, when they came hither, permission to see it; of which, Dr. Solander and myself are sufficient witnesses, from the many applications that have been made through us for that permission."

The account which we have here given is the more honourable to Fothergill, because it comes from the pen of a distinguished individual, who was not merely an excellent judge of horticultural pursuits, but the patron of all that was useful to his country and his age,—the late Sir Joseph Banks. A winding canal, in the figure of a crescent, formed this garden into two divisions, and occasionally opened on the sight, through branches of rare shrubs, which lined the walks on its sides. In the midst of winter, when the earth was covered with snow, evergreens were here clothed in full verdure. Without exposure to the open air, a glass door, from the mansion-house, gave entrance into a suite of hot and green house apartments, nearly 260 feet in extent, and containing above 3400 distinct species of exotics, whose foliage formed a beautiful contrast to the shrivelled natives of colder climes. In the open ground, about 3000 distinct species of plants and shrubs bloomed on the return of summer.

Such displays were not in him the effect of ostentation; he had always in view the enlargement and elevation of his own mind, and the prospect of multiplying the enjoyments of his fellow-beings. He formed an useful exchange of the productions of the earth. From America he received various species of catalpas, kalmias, magnolias, firs, oaks, maples, and other valuable productions, which became inhabitants of his own soil, and some of which were capable of being applied to the most useful purposes of timber; and he transported, in return, the green and bohea teas from his garden at Upton, to the southern part of that continent. He endeavoured to improve the growth and quality of coffee in the West Indian islands; and procured from China the bamboo-cane, with a view of naturalizing it in our intertropical possessions. He made many efforts to introduce the cinnamon-tree into the West Indian colonies. He attempted to procure the tree which affords the Peruvian bark, and is said to have, at length, so far succeeded, as to have had one plant in his garden. To two captains of ships he offered each a reward of one hundred pounds for a plant in vegetation of the true Winter's bark (*Winterana aromatica*). But his attention was not confined to the vegetable kingdom. Da Costa is indebted to him for many valuable remarks inserted in his History of Shells, of which Fothergill possessed the best cabinet in England, next to that of the Duchess of Portland. His collection of minerals was more rare than extensive; and the gratitude of his numerous friends had supplied him with many curious specimens of the animal world. He afforded employment to many artists, in directing the delineation of various productions of Nature, which were too bulky to transport, or too perishable to preserve: twelve hundred of such drawings are said to have been in his possession, and were purchased, at his death, for the Empress of Russia, at the price of 2300l. His collection of natural history was purchased, on his decease, by the eminent Dr. William Hunter, and is, probably, at this moment, to be found, in part, in the museum which that distinguished physician bequeathed to the University of Glasgow, after having vainly solicited the ministers of the time to enable him to establish one in London.

He maintained a frequent correspondence with North America, where his father and brother had spent many years in the service of religion. Several families are said to have even crossed the Atlantic, with a view of placing themselves under his care. He earnestly laboured to promote the improvement of rural economy and of commerce in that part of the world. In conjunction with his friend, Peter Collinson (a name upon which we should be glad to dwell more at length), he encouraged the cultivation of the vine there; and still more usefully strove, with others, to abolish the *slave-trade* among his own brethren—an object which they at length had the happiness to accomplish.

Charity was the predominant feature in Fothergill's character; that beautiful quality which many find so difficult to imitate, and which, in most minds, is a flower the slowest to blossom, and the earliest to decay. Few names on the record of biography will bear comparison with him in this respect. We do not know whether this noble characteristic was in him the result more of an original tenderness of disposition, or of self-discipline and principle; it seems probable that the study of our Divine Revelation had opened this plenteous fountain of beneficence in a mind not naturally of an enthusiastic temperament. When, during the summer, he retired to Lea-Hall, in Cheshire, he devoted one day in every week to attendance at Middlewich, the nearest market-town, and gave his gratuitous advice to the poor. He assisted the clergy, not merely with his advice, but on numerous occasions with his purse: on one occasion he was reproved by a friend for his refusal of a fee from a person who had attained a high rank in the church: "I had rather," replied the doctor, "return the fee of a gentleman with whose rank I am not perfectly acquainted, than run the risk of taking it from a man who ought, perhaps, to be the object of my bounty." When he paid his last visit to patients in decayed circumstances, it was not unusual with him, under the appearance of feeling the pulse, to slip into their hand a sum of money, or a banknote; in one instance, this mode of donation is said to have conveyed one hundred and fifty pounds. To the modest or proud poverty which shuns the light of observation, he was the delicate and zealous visitor; in order to preclude the necessity of acknowledgement, which is often painful in such minds, he would endeavour to invent some motive for his bounty, and hence afford to the receiver the pretensions of a claim, while the liberal donor appeared to be only discharging a debt. Rarely was any subscription commenced on whose list the name of Fothergill did not stand foremost. When the success of our arms had filled our prisons with foreign captives, he was appointed member of a committee which superintended the sums raised for their relief; and it should be stated, to the honour of his community, that above one fourth of the whole subscription was contributed by the Quakers, who then scarcely formed the two hundredth part of the nation. To Dr. Knight, a literary man, whose character was deservedly esteemed, but who, by some speculations in mining, had become embarrassed in circumstances, he is supposed to have afforded aid to the amount of a thousand pounds. We shall not pause to calculate the total amount of his bounties, which have been estimated at so high a sum as two hundred thousand pounds; but it is evident that his generosity knew no other limit than his means.

In 1763, he was elected a fellow of the Royal Society. His reputation soon extended to other countries; he was one of the earliest members of the American Philosophical Society, instituted at Philadelphia. Linnæus distinguished by his name a species of *Polyandria Dygynia*. The Royal Society of Medicine, at Paris, chose him as an associate in 1776; and his letters of admission were the more honourable, because they included a request, that Fothergill would nominate any persons of his acquaintance whom he might deem eligible to become corresponding members of the body. Vicq d'Azyr communicated this mark of confidence in a Latin letter.

When the House of Commons was informed of the fatality of the gaol distemper, which had appeared among the French and Spanish prisoners confined at Winchester, an application was made to him for his opinion, and he recommended Dr. Carmichael Smith as medical superintendent of the prison. A singular success attended the efforts of that accomplished physician, which reflected honour on both parties.

Far from confining his investigations to his own professions, or to natural history, his mind embraced, with great activity, every scheme connected with public improvement. Internal commerce, police, the economy of prisons, all occupied his attention, as the occasions arose for their improvement: he directed his thoughts at one time to the establishment of public baths and of public cemeteries, the latter of which admit, at this moment, of much improvement, and in their present condition, in London, are equally offensive to the eye, as they are probably injurious to the health, of the inhabitants. He was very instrumental in establishing an excellent seminary for the children of Quakers, not in affluent circumstances, at Ackworth. The disputes between the mother country and the American colonies engrossed him very earnestly: he engaged actively in various attempts to promote concord; and appears to have been employed, to a certain extent, in political negociation. Franklin, with whom he treated on this subject, declares, that he doubts whether any man has ever existed more worthy than Fothergill of universal veneration.

Perhaps we might have spoken more largely of his literary essays, which were numerous; in recording the generality of men, these would occupy us more fully, but in the life of Fothergill they form only a secondary consideration. The fame of authorship, and the accomplishments of the man of science, are consumed in the blaze of that exalted virtue which was not contented merely to discharge with indifference the decencies of life, nor even honourably to fulfil its duties, but sought, in every period of its career, to improve the condition of mankind, to befriend the weak, and to feed the hungry, and literally considered the fruits of its own labour as a treasure invested for the benefit of others.

In December 1780, he experienced a second attack of suppression of urine; two years previously it had been relieved, but no art could now remove it. The pain was very acute, his thirst was insatiable, but his mind was as serene as in his best days; he endeavoured even to assume the cheerfulness which was natural to him when in health. He expressed to a friend his hope "that he had not lived in vain, but in degree to answer the end of his creation, by sacrificing interested considerations, and his own ease, to the good of his fellow-creatures." In a fortnight he breathed his last. More than seventy carriages followed his remains to the grave,—not filled with the careless attendants on the great, who mourn in order to be visible, but with individuals whom he had contributed to render happy.

Dr. Hird has drawn, from affectionate intimacy, a personal sketch of this great man, which our readers will view with the gratification which attends a visit to the private apartment of the illustrious. The person of Dr. Fothergill was of a delicate, rather than of an extenuated make; his features were all character; his eye had a peculiar brilliancy of expression, yet it was not easy so to mark the leading trait as to disengage it from the united whole. He was remarkably active and alert, and, with a few exceptions, enjoyed a general good state of health. He had a peculiarity of address and manner, resulting from person, education, and principle; but it was so perfectly accompanied by the most engaging attentions, that he was the genuine polite man, above all forms of breeding. At his meals be was remarkably temperate; in the opinion of some, rather too abstemious, eating sparingly, but with a good relish, and rarely exceeding two glasses of wine at dinner or supper; yet, by this uniform and steady temperance, he preserved his mind vigorous and active, and his constitution equal to all his engagements.

Not satisfied with the acts of generosity which he had multiplied during his lifetime, he directed in his will that the presents which had been made to him should be restored to their donors.—*Family Library.*

BIOGRAPHICAL SKETCH OF THE CELEBRATED GALL.

Jean Joseph Gall was born in 1758, at Tiesenbrunn, in Wurtemburgh, and died at Mont Rouge, near Paris, in the summer of 1829. His father, who was a merchant, sent him, whilst yet very young, to one of his uncles in the duchy of Baden, to commence his education. From this place Gall went to Strasbourgh for the purpose of studying medicine; then to Vienna, where he assumed the garb of the physician, which profession he practised up to 1805, when he left the last-named city to return to his father, who had a desire to see him previous to his death, and also to make a tour in the north of Germany, where he commenced teaching his new doctrine. Finally, he arrived at Paris in 1808, where he continued till his death to devote himself to the practice of medicine, and to promulgate the results of his laborious researches.

From an attentive examination of the head of this celebrated man, who for intellectual capacity may be ranked with the first of the age, the author of the treatise before us drew the following indications, namely: among the organs most developed may be enumerated all those situated on the anterior and superior parts of the forehead, such as the spirit of induction, that of wit, the faculty of abstracting and generalizing, but, above all, benevolence. On the crown and sides of the head, there was also strong developements of firmness or perseverance, caution and cunning, or rather finesse and ingenuity. The accusation of duplicity with which he had been charged, our author regards as unfounded. The sexual appetite was strongly marked upon the occiput, whilst the anterior and inferior parts of the forehead exhibited small indications of the memory of facts and philology. Finally, colour, music, mathematics, mechanics, and especially poetry, were very faint: and this last sense to such a degree that he actually had an antipathy for versification. All the other organs were in a state of ordinary developement. That of locality, which had appeared very prominent, was only a contraction of the skin, produced by the habit of thinking.

To this cranioscopy must be added a strong constitution, a degree of corpulence, and a stature considerably over the mean height. His movements displayed more gravity and energy than lightness and promptitude, his looks much fixedness and penetration. His countenance was sometimes marked with care, and had generally an expression rather of seriousness than gaiety. Calm and circumspect, he was always free from blustering and foolish mirth. A sarcastic smile, mingled with an air of irony, sometimes sprung from his mouth and the alæ of the nose. He had a superb forehead, and a chin slightly prominent, full and firm; a clear skin and fresh complexion, thick lips, and passions more profound than violent. The expression of thought was always clear, precise, often picturesque, but sometimes scornful. His lectures ordinarily consisted of a simple exposition of facts; but, in conversation and discussion, interrogation and irony were most conspicuous. The motions of his extremities and attitudes of his body were very negligent; but the tones of his voice, accent, movements of the head, and physiognomy, were very expressive. In fine, a certain fund of German goodnature redeemed some rather rude expressions of humour, which were neither sufficiently mild nor innocent not to produce a slight irritation.

The cranium, after death, having been carefully separated with a saw from above the eyelids, was found of great thickness (about three lines,) as well as hardness. Between the dura mater and pia mater there were about two ounces of a bloody matter, with some exuberances, one of which was about the size of a pea. The cerebral substance was firm and nearly in a natural condition, although during his illness it had been suspected that the brain was the organ chiefly affected. The skullcap and brain having been removed, weighed together four pounds, one drachm and a half; the skullcap itself weighed one pound, five ounces, one drachm. Thus the proper weight of the brain alone, when disengaged from its meninges, was two pounds, eleven ounces, and half a drachm; a weight indicating a brain, the dimensions of which are very near the maximum they ever attain.

From all this our author remarks, "It is evident that, in the sense which he attached to the word philosophy, Gall had a head eminently philosophic. He was, in fact, skilful in distinguishing prejudices from eternal truths. He possessed an astonishing perspicacity for penetrating into things, and exhibiting them in a point of view fruitful in useful resources; but, in my opinion, he wanted several faculties to constitute a mind of the order of Descartes, of Newton, of Leibnitz, of Wolf, &c. perhaps even of Bacon. With him, in fact, the faculties of casuality and comparison were well developed, but this was not sufficient to enable him to arrive at a system of philosophy at once severe and positive, which embraced at the same time every thing relative to man, and the chain of admirable phenomena which constituted the moral and physical order of the universe. Many organs, especially those of the mathematics, arts, localities, &c. were too weak in him to admit of his elevation to such a height; but he had the organization which qualified him to lay close hold on human nature, and lay the foundation of the true philosophy of man. Many others, with fewer titles to our gratitude, have covered themselves with immortal glory."—*American Journ. of Med. Sc.* From the "Précis Analytique et Raisonné du Systeme de Dr. GALL." Paris, 1829.

MONTHLY LIST OF MEDICAL BOOKS.

Mémorial des Hopitaux du Midi, et de la Clinique de Montpellier; par le Prof. DELPECH. Juin 1830, 2e Année. No. 18, tome 2. Montpellier.

Practical Remarks on the Nature and Effects of the expressed Oil of the Croton Tiglium, with Cases illustrative of its Efficacy in the Cure of various Diseases. By MICHAEL J. SHORT, M.D. Plate. 8vo. pp. 63. London, 1830.

Appendix to the Second Edition of a Series of Observations on Strictures, &c. By R. A. STAFFORD. 8vo. pp. 52; stitched.

A Treatise on Pulmonary Consumption, its Prevention and Remedy. By JOHN MURRAY, F.S.A. F.L.S. F.H.S. F.G.S. &c. 8vo. pp. 156.

The Family Library, No. XIV. Lives of British Physicians. 12mo. pp. 341. Murray, 1830.

Practical Observations on Leucorrhœa, Fluor Albus, or "Weakness;" with Cases illustrative of a new Mode of Treatment. By GEORGE JEWEL, Member of the Royal College of Surgeons, Lecturer on Midwifery, &c. 8vo. pp. 108. Wilson, London, 1830.

A Treatise on the Minute Anatomy of the Bones. By ANTONIO SCARPA, Professor of Clinical Surgery in the University of Pavia. Translated from the last Latin Edition. 16mo. pp. 70. London: Bulcock, Chelsea, 1830.

METEOROLOGICAL JOURNAL,

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

	Moon.	Rain gauge.	Thermom.			Barometer.		DeLuc's Hygrom.		Winds.		Atmospheric Variations.		
			9 a.m.	max.	min.	9 a.m.	10p.m.	9 a.m.	10p.m.	9 a.m.	10p.m.	9 a.m.	2 p.m.	10p.m.
July 20		.06	65	69	59	29.96	29.97	57	56	SW	WSW	Cloudy	Sho'ry	Fine
21			68	71	62	30.04	30.06	54	56	WSW	WSW	Fine	Fine	Fine
22			66	71	63	.07	.00	57	56	WSW	SW	Cloudy	—	—
23			70	72	64	29.96	29.96	56	54	WSW	W	Fine	Cloudy	Cloudy
24			72	75	67	.97	30.00	54	50	W	WSW	Fine	Fine	Fine
25			71	77	66	30.10	.10	52	50	WSW	WSW	—	—	—
26			73	83	68	.10	.10	51	49	WSW	SW	—	—	—
27	☽		75	81	63	.16	.19	45	48	SSW	E	—	—	—
28			70	82	72	.19	.12	48	50	E	ENE	—	—	—
29			76	82	75	.01	29.88	50	51	NE	SE	—	—	—
30			80	81	69	29.80	.77	51	50	SE	SSW	—	—	—
31			71	79	67	.89	.89	48	45	SSW	WSW	—	—	—
Aug. 1			74	77	61	.80	.72	45	48	SSW	SW	—	—	—
2		.23	65	70	58	.67	.74	50	51	WSW	WSW	Cloudy	—	—
3			62	67	62	.83	.91	51	50	SW	SW	Fine	—	Rain
4	○		65	72	65	.91	.79	50	48	SSW	SSE	Show'y	—	Cloudy
5			69	74	59	.77	.85	46	47	W	W	Fine	—	Fine
6			65	67	57	.85	.86	47	48	WNW	W	—	—	—
7			63	68	56	.77	.65	48	46	W	SW	—	—	Cloudy
8			62	66	59	.56	.60	49	50	E	E	Rain	—	Fine
9			62	70	56	.66	.60	50	52	E	NNE	Fine	—	—
10		.25	58	70	58	.49	.48	52	52	NE	NE	Cloudy	—	—
11	☾		62	71	58	.54	.53	53	52	NE	S	Foggy	—	Cloudy
12			66	69	58	.58	.66	52	53	SW	SSW	Cloudy	—	Cloudy
13			58	62	53	.54	.64	54	54	SSW	WSW	Rain	Rain	Fine
14		.38	60	65	52	.72	.39	53	58	SW	WSW	Fine	Rain	Sho'ry
15		.62	58	66	54	.60	.72	60	58	W	W	Cloudy	Fine	Fine
16			60	60	50	.77	.81	54	53	W	W	Fine	Rain	Fine
17			58	60	49	.81	.85	53	53	W	NW	—	Fine	Rain
18	●		54	61	48	.96	30.00	52	52	NW	NW	—	—	—
19			57	60	55	30.01	29.92	50	53	NNW	NW	—	—	—

The quantity of Rain fallen in July was 1 inch and 48-100ths.

NOTICES.

Communications received from Dr. and Mr. D. GRIFFIN, Dr. ALEX. THOMSON, Mr. GILBERT BURNETT, Mr. GUTHRIE, Mr. JENNINGS, *of Leamington Spa*, Mr. HOBART, Dr. DOBSON, *and* Mr. WILLIAMS.

THE LONDON
Medical and Physical Journal.

Nº 380, VOL. LXIV.] OCTOBER 1830. [Nº 52, *New Series.*

For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty, in Europe and America, were under deeper obligations than to the *Medical and Physical Journal of London*, now forming a long but invaluable series.—RUSH.

ORIGINAL PAPERS, AND CASES,

OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER AUTHENTIC SOURCES.

FISTULOUS OPENINGS.

Case of Fistulous Opening between the Urethra and Vagina, successfully treated. Case of Incontinence of Urine cured by Operation. By SAMUEL HOBART, Esq. Cork. (Communicated by Mr. BRODIE.)

THE communication which I submitted to you in the autumn of 1825, upon Fistulous Openings between the Urethra and Vagina, having been inserted in the London Medical and Physical Journal of December 1825, accompanied by a plate of the instruments used upon that occasion, I am not without the most sanguine hopes that, in other hands, the treatment has been equally successful.

It is remarkable that I should have had another opportunity of proving the advantages of the above operation, as Catherine Mahony, the case alluded to, having again become pregnant, a similar calamity occurred, and a similar mode of treatment has been productive of an equally fortunate result as in the former instance; the detail of which has been amply given in the London Medical and Physical Journal of December, 1825.

I feel, therefore, I should be deficient in my duty to the profession, if I did not request you again to receive my communication; as I fear that similar cases must be much more frequent than is imagined.

It has long been supposed by physiologists that the bladder alone was engaged in the expulsion of the urine.

The following case, however, is so important in a practical point of view, as proving the muscular powers of the female urethra, that I think it cannot better be brought forward to the notice of the profession than in a paper devoted entirely to the urinary organs.

Case. Mary Connor, a respectable young woman, æt. twenty, labouring under incontinence of urine, consulted me some time since, in the expectation of receiving some relief from symptoms which rendered her existence miserable. She gave me the following statement of her case: That she had fallen down stairs about three years before, and had injured her back in the fall, from which period, up to the time of her placing herself under my care, she gradually lost all command over the contents of the bladder: she had previously taken the advice of many professional men in Cork and elsewhere, without receiving any benefit, and at the time above alluded to, suffered extremely from excoriation of the labia, and inside of the lower extremities, from the constant flow of urine. The opinion entertained of her case was, that the symptoms were caused by paralysis of the neck of the bladder, produced by the fall, and that little or nothing could be done for her relief.

On examination, I found the urethra so much enlarged (so that, unless the power of retaining the urine depended entirely on the sphincter vesicæ, no check could be given whatsoever to its constant flow,) as to admit with facility a full-sized rectum bougie. The sides of the canal lay quite loose and flabby, appearing to have entirely lost the power of contractility. It appeared to me that a certain degree of harmony should exist between the bladder and urethra, to produce the natural control over the contents of the former viscus: with this view I proposed diminishing the diameter of the canal, by removing a portion of its substance; but my professional brethren in attendance would not consent to my suggestion, as they were of opinion that it would not be productive of success: it was therefore abandoned until other means should be tried. Every plan that could be devised, and every medicine that could be thought of, were employed, but without producing the slightest improvement. I, then, a second time proposed my former plan of treatment, which was agreed upon, and the operation was performed in the following manner, in the presence of my friends Drs. Pitcairn and Bull.

Having placed her on her knees on a table, with her head downwards, and dilated the vagina with Weis's speculum, I introduced the index finger of my left hand into the urethra as far as the neck of the bladder, and having passed a sharp-pointed bistoury to the end of my finger, then raising its point, and cutting through the side of the urethra, so as to form one cavity of that canal and the vagina; I removed a portion of the urethra, the entire length of the canal, and of a triangular shape, with a knife-edged scissors. The lips of the wound were then brought together by means of pins, and secured by the interrupted suture.

The pins were all removed at the end of eight days, leaving the parts perfectly united, and the woman completely restored, having entirely recovered the perfect control over the discharge of urine. The urethra at this time has to all appearance recovered its natural tone and size.

That this case throws an important light upon the functions of the urethra, is but too evident. A very intelligent teacher of anatomy, to whom the detail was submitted, looked upon it as a forlorn hope, and that a "dripping" urethra would be her portion for the remainder of her life. I confess, however, I was not oversanguine myself in the result; but I felt so much interest in a case that I had anxiously watched for three years, that I determined to make the experiment, and the consequence has been not only the restoration of a young woman to the enjoyments of all the comforts of life, but also to having enabled her to become a wife, and possibly in due time a mother.

DRACUNCULUS.

Case of Dracunculus, or Filaria Medinensis. Communicated by GILBERT T. BURNETT, Esq. Surgeon, &c.

As Guinea worms, although familiar to surgeons who visit the coasts of Africa, and to practitioners in our settlements in either India, are not frequently met with in this country, perhaps the following case, the progress of which was investigated and watched with considerable attention, both before and during the time the patient was in St. George's Hospital, may not be wholly devoid of interest; and, if so, it may be probably esteemed not unworthy a place among the select records of the London Medical and Physical Journal.

Anne Tennerson, aged fifty, a soldier's wife, and the mother of five children, returned to England on the 1st of May, after a residence in India of upwards of eighteen years. During her sojourn abroad, she had in general enjoyed very good health; the only exceptions being an attack of the ordinary fever of the country, and another of cholera morbus, upwards of ten years since, from both which she had entirely recovered. She embarked at Bombay in December, i. e. nine months ago, in perfect health. In the course of about two months after the commencement of the voyage, and when off the Cape, she was seized with very severe pains of the left leg and foot, which she appeared totally unable to describe; for of them only a negative character can be obtained, viz. that "they were not at all like rheumatism," to which it would seem they had been at first attributed. She had never been affected with Guinea worm while in India, and not the least suspicion was entertained of Dracunculus being the cause of her sufferings. There was no apparent swelling of the leg, nor any external visible disorder. The pains, however, continued, and, in spite of the means employed by the surgeon on board, and others after her arrival in England, for their relief, they gradually increased, and at times were extremely acute: indeed, during the last three months, they have been almost constantly present.

Early in June, i. e. about a month after her arrival, she first noticed several small lumps, or slight elevations of the integuments, which became inflamed and looked as if they would fester; but it was not until August that she observed a thready elongation stretching from one of these tubercles, which line might be traced in its extension under the skin for two or three inches. From this she immediately conjectured it to be a Guinea worm, having seen such symptoms in other persons abroad; but previously she had no idea what ailed her.

Having walked much on the 10th of September, the following morning, when about drawing on her stocking, she found that the swelling on the left foot had burst during the night without pain, or her being aware of it, and that a dracunculus had protruded itself about an inch. She tied its end with a piece of cotton, and, winding it round a card, extracted as much as she says "would reach from her elbow to her fingers' ends." The appearance of the worm is something like a bit of wet catgut; it was wound round some soft lint, and fastened to the skin by strips of adhesive plaster; but, notwithstanding this precaution, on getting into bed she accidentally broke it off close to the surface. There is another pimple on the inner side of the left thigh, just above the knee, and round about it the convolutions of another worm can be distinctly seen and felt underneath the skin. There are two other similar pimples, and several slight indistinct elevations, which are suspected to be the nests of other worms.

September 14th. Inflammation followed the rupture of the worm: this has been relieved by antiphlogistic means, and the pain of the part alleviated by using the foot bath.

16th. Inflammation returned; much pain and redness of the foot and instep, where the worm was broken off; abscess forming. No apparent change in the pimple just above the knee; but, at ten o'clock last night, another worm protruded itself from a small opening formed spontaneously in the upper part of the left thigh, near the pudendum. This pimple had entirely escaped notice, and had not been attended with any marked uneasiness or pain. The appearance of the worm is like that of its precursor. Eight or ten inches have been wrapped round a pledget of lint, and confined by plaster as before.

17th. Abscess in the instep opened.

18th. The worm has again appeared at the incision, and a portion of it has been extracted.

19th. The dracunculus on the thigh broken off; much irritation. Fomentations and poultices applied.

22d. The worm at the instep again given way.

24th. Abscess forming above the ankle.

October 4th. Poultices, &c. have relieved pain, the pus has been evacuated, and the abscesses now are nearly well. In the upper part of the calf of the right leg there is a small, hardish tumor, indicating the presence of another worm; the integuments are inflamed and very tender.

12th. The tumor on the calf of the right leg has much increased in size, and is daily expected to give exit to the dracunculus which is contained within it, and which can be traced by its convolutions beneath the skin. The small tubercle on the left thigh has not at all increased or altered its appearance since the first note of it on the 11th of September.

18th. The swelling on the right calf continued inflamed and very sensible when touched, although the irritation was so much moderated that it was not painful when kept undisturbed, until this morning, when the patient, while fomenting it, found the skin suddenly give way, and a small portion of the contained worm became consequently extruded. Its mode of exit was somewhat different to that of either of the previous ones, the head not appearing first, but the integuments having been ruptured over a convolution, a loop was thus projected, but the head of the animal was easily drawn out, and several inches have been wrapped round lint as heretofore: the worm was said to have resisted the extraction, and that not only a resistance, but a reaction was sensible, while holding it between the fingers, as if it was endeavouring to withdraw itself beneath the cuticle.

20th. The worm has been more and more extracted each morning: it has a beautiful semitransparent hue, something like the lighter shades of the opal.

24th. The parts in the neighbourhood of the worm have been inflaming more and more each day; now they are exquisitely tender, and there is much heat, redness, and swelling. The aperture through which the worm hangs has enlarged, and suppuration is commencing. The worm has lost much of its brilliancy, and it is no longer semitransparent, but resembles wet catgut. Much care has been taken not to break this dracunculus, and it is still entire; but the pain seems to be as great as in the previous cases when the worm was broken. The woman, who does not appear to be at all of a querulous disposition, is often found in tears. Yesterday the tubercle on the left thigh, although very slightly enlarged, gave way, and furnished another worm. This dracunculus is much smaller than either of the foregoing, and has not the brilliant opalescence of the last. Poultices and fomentations, seeming to afford the most relief, are assiduously applied to both.

29th. The worm from the calf of the right leg has not been forcibly broken, but appears to have been killed by the heat of the poultices and fomentations, and to have become disorganized. Portions, like soddened shreds of parchment, are extruded, and brought away with every poultice. The leg is much easier. The other smaller worm on the left thigh is as yet unbroken. The patient walks about a little, but her health has suffered much from the continual irritation which the succession of worms, and their consequent abscesses, have kept up.

November 2d. Symptomatic fever lessened; the worms continue daily to be extracted. She states that, from some peculiar sensations in the left foot, where the dracunculus first appeared, and which has for some time been apparently quite well, she thinks that either some part of the original worm has been left, or that another is lurking therein. When asked to describe these sensations, she says they are unlike any thing she ever felt; also that she thinks she can perceive an indistinct motion, as if the animal attempted to vary its situation.

13th. The worms have both been extracted gradually day by day: the small one progresses very slowly, sometimes not more than half an inch being afforded in twenty-four hours.

19th. The fomentations having been used warmer, the exit of the worm has been rather more free. The right foot is still suspected by the woman, but there is no appearance of a worm.

December 1st. The worms still continue to be extracted day by day, and are now supposed to be entirely removed. The ulcer in the calf of the right leg is healing. The dracunculus from the left thigh measures upwards of three feet in length; but, on examining the end, it has not the gradual acumination nor the caudal hook which characterizes the species. It seems as if the integument had been ruptured, and about an inch of the inner substance of the worm drawn out: probably this was occasioned by the hooked tail retaining it firmly within the wound.

5th. The ulcerations now all healed; health much improved, and the uneasy feelings in the left foot much abated.

No further notes were taken. The patient soon after left town, and continued well for at least a considerable time: most probably the whole of the dracunculi had been removed.

This case would seem chiefly to have differed from the few of Malis Filariæ on record, by the marked severity of the previous symptoms; and, although so many openings were effected by the worm, or more probably by the several worms, a much less extent was drawn out than seems to have been usually afforded by the dracunculi, when occurring in warmer latitudes. In an account published by Messrs. HUTCHESON and FORBES, in the second part of the fifth volume of the Edinburgh Medical Essays, page 269, I find, on reference, they state that, during a voyage from Jamaica to Bermuda, a case occurred to them in the person of a youth from Guinea, fifteen years old, and that they drew out from him a piece of dracunculus ten feet and a half in length; and not only this, but also that in the course of eight weeks, they extracted in several fragments, and from different ulcers, thirty yards of the worm, i. e. the almost incredible quantity of ninety feet!

The Filaria medinensis, or Guinea worm, has long been noticed: the Malis Filariæ is, indeed, a disease of classic celebrity. PLUTARCH quotes Agatharcides for an account of these animals, and calls them δρακοντια, whence the ordinary name *dracunculus*. It would seem that it was once doubted whether they were truly distinct animal existences, or whether they were not rather to be considered as diseased formations of those parts in which they are found. The negative of this latter opinion has been, however, long established, and it probably arose from a misinterpretation of the Arabian physicians; for Dr. MASON GOOD has observed that the *irk Medini* should have been translated Vermis Medinensis, and not, as it has been corruptly rendered, Nervus or Vena Medinensis. The dracunculi are said to be "frequent in the morning dew," and are supposed then to perforate the cuticle, and bury themselves beneath it, especially in the naked feet of the Negroes. It seems to me, however, from observing the progress of the worms in the foregoing case, to be not improbable that the ova may be deposited beneath the cuticle by the parent, or conveyed into the system with the ingesta; as the insinuation of the mature dracunculus could scarcely escape observation: nor is it likely that it would remain so long in a dormant state as we frequently find that it has done, viz. for months, nay, sometimes for upwards of a year; indeed, authors do state that it has been known to exist in the human body many years without producing pain or inconvenience. Still it must be confessed that, of this opinion I have been unable to procure any decided confirmation; for, on endeavouring to trace the earlier history, I could only learn that, of the eighteen years of this woman's life in India, the eleven first were passed in Guzzurat, and the latter seven at Matungha, about five miles from Bombay; that the water which is used and drank at Matungha is collected and kept in tanks, while that with which they were supplied in Guzzurat and elsewhere is procured from wells and rivers; that in Guzzurat the Guinea worm is unknown, except as brought from the neighbourhood of Bombay; while at Matungha and its vicinity it is very common, appearing on all parts of the body. Indeed, its very frequent occurrence among the soldiers at Matungha has excited the attention of the authorities there, and committees were appointed, which sat for many months to investigate the cause, and to suggest some mode of prevention; but I could not learn that any thing satisfactory had been ascertained, or any important measures decided on.

This woman dwelt somewhat on the circumstance that at Matungha, in addition to the musquittos, which abound in all parts of India, there is a blueish fly, which is described as being peculiar to that neighbourhood, and which, by its biting or stinging, annoys the people very much; but it is not probable that the Filaria should be the larva of any such fly, as it is, or at least appears to be, one of the "Entozoa Nematoidea" of Rudolphi, the "Intestinaux cavitaires" of Cuvier. The genus Filaria, of which several species are known, is distinguished by having a very lengthened and much extenuated body, the anterior extremity of which is terminated by a round mouth; the abdominal cavity contains a long intestinal canal leading to an anus, and the organs of generation are described as being distinct. The most celebrated, and to us the most important, species is the Filaria medinensis; the specific character of which is its hooked and pointed tail.

LITHOTRITY.

Case of Calculus in the Bladder. Operation of Lithotrity successfully performed by Baron Heurteloup. (Communicated by Dr. Dobson, Surgeon, Greenwich Hospital.)

Samuel Gudge, aged fifty-four, a pensioner of Greenwich Hospital, was received under my care for gonorrhœa, after having been treated in the usual manner for the space of fifteen days. Supposing that his complaint was not simply gonorrhœa, I introduced a sound, and found a large calculus in the bladder, the existence of which the patient would not believe, as he had never suffered the slightest symptom of stone, nor did he feel the least inconvenience from it, in consequence, as we suppose, of its being lodged in a distention of the bladder corresponding to its size, immediately behind the prostate gland: this inference was drawn from its not being felt at all when the man was sounded standing, but, when he was placed in a horizontal position, it fell to the fundus of the bladder, and could be at all times distinctly felt.

The patient being unwilling to submit to the operation of lithotomy, I proposed to him that of lithotrity, with a view of putting that operation to the test. I had previously seen the instruments of Baron Heurteloup, and was satisfied in my own mind that they were calculated to perform all that the Baron promised. The man having given his consent, I requested the Baron Heurteloup to sound him, which he did, and also willingly undertook to operate on him gratuitously. Sir Richard Keats, the governor of the hospital, with the laudable view of promoting science and lessening human suffering, kindly sanctioned the operation.

Before the Baron saw the patient, I dilated the lips of the urethra which were contracted at the superior angle, with a bistoury, and ultimately passed a straight bougie (No. 19,) into the bladder.

May 10th. The rectum having been previously emptied by an enema, the Baron proceeded to the operation: having injected the bladder full of warm water, he introduced his instrument with four branches, and soon succeeded in grasping the stone, which he drilled and excavated; the patient suffering no other pain than a desire to void his urine during the operation. After the Baron had withdrawn his instrument, the urine the patient passed was slightly tinged with blood, and much sand or groundstone came away, but no more blood after the first time.

11th. The patient feels well, but complains of some smarting in making water, which still contains sand.

14th. Urine turbid, but contains no sand.

15th. Sounded him: stone feels rough, and seems to be placed with its long axis from side to side. He complains of some pain in the lumbar region. The quantity of detritus collected from the first drilling was half a drachm.

June 3d. The Baron repeated the drilling and perforation with a larger instrument, with only three branches. The process occupied about a quarter of an hour: a considerable quantity of sand came away in the urine, but no blood.

4th. Sounded, but found the stone not broken. The quantity of detritus from the last operation collected, forty-five grains.

10th. The Baron again repeated the operation, but found more difficulty in introducing the instrument, on account of the urethra being rather swollen, as he supposed, from the former operation. He grasped the stone without difficulty; but to perforate it was not so easy, on account of its extreme hardness, which was so great as to resist the virgule, or excavator, and, in taking another presentation of the stone, one of the claws of the instrument got into a former perforation, and it occupied the Baron several minutes before he could get rid of the stone. After this, when the patient emptied his bladder, some coagulum passed, but water injected immediately came away quite clear.

11th. Urine clear, but some soreness and scalding.

12th. Some hard dark pieces of calculus in the urethra, but the stone still continues large. The quantity of detritus collected since the last operation, 122 grains.

25th. Rigors, succeeded by perspiration. I passed a large sound with great ease. He complains of his water scalding him, and it has an offensive smell. The stone feels rougher than at first, and seems to descend more closely to the neck of the bladder. Baron H. came down today, with the intention of operating, but deferred it in consequence of the man's indisposition.

30th. The Baron operated with an instrument which seizes upon the stone with three claws pointed inwards at almost a right angle, and, when thus held, he strikes the stone with a central rod and hammer, by which the claws reduce the size of the stone, exteriorly. The Baron found considerable difficulty in getting rid of the stone from the instrument, in consequence of it, or some portion of it, having got between the central rod and one of the claws. The patient evacuated several pieces of the exterior part of the stone with the water immediately after the instrument was withdrawn.

July 1st. Has passed a large quantity of laminated fragments of the calculus, and complains of the stone feeling very sharp, particularly after making water. Quantity of detritus collected, thirty-four grains.

7th. The Baron came, and drilled the stone in several places; he also used the hammer once. The man complained of more pain than on former occasions. After the instrument was withdrawn, several large and small pieces of detritus came away.

8th. Complains of numbness about the pubis.

11th. Some uneasiness in perineo, and wished the large sound to be introduced, which passed without difficulty.

13th. Mr. Hume, having analyzed the fragments of the calculus, reported it to be lithic acid, and animal matter, probably urea, mixed with it. The quantity of detritus collected, thirty-four grains.

14th. The Baron operated, but did not seem to perforate the stone so much as usual; he hammered the central rod to reduce the stone exteriorly. The process was rendered more tedious and painful than usual, in consequence of some fragments, mixed with fibrine, getting entangled in the claws, and preventing their being perfectly closed when withdrawn.

15th. A large piece of calculus, weighing ten grains, was extracted from the urethra by the forceps; several smaller fragments being discharged.

18th. Passed a large fragment, in which five laminæ were distinctly seen, dark and light coloured alternately.

20th. A small piece of stone was sticking in the urethra, which came away by injecting the bladder full of water by the stomach pump fitted with a catheter. I afterwards introduced a large sound. The quantity of detritus collected, fifty grains.

At two P.M. the Baron operated with a smaller three-branched instrument, which he preferred in consequence of the difficulty he found the last time: he perforated with it in several places. The quantity of detritus collected, thirty-four grains.

29th. The Baron operated on this occasion with the brisecoque, instead of the trois-branches instrument, and I observed that with it he seized the stone more readily, and gave the patient less pain than with the two others, though he did not suffer much from either. The detritus collected was more square, the quantity twenty-one grains.

August 5th. The Baron repeated the use of the brisecoque, with which he twice seized the stone without difficulty, and gave the patient little or no pain. Some detritus came away with the water when the instrument was withdrawn, and the bladder was subsequently washed out with warm water. In the two last operations no blood passed.

10th. No detritus in the urine: a small portion of stone remains in the bladder, which I felt after having injected it full of warm water.

14th. A little piece of calculus still in the bladder, which is too small to communicate the usual feeling to the hand by the sound, though it can be distinctly heard. Some small fragments came away with the urine after sounding, though none had passed for the last five days.

16th. This forenoon, a fragment of the stone having lodged in the urethra, I removed it by the forceps.

At two P.M. the Baron came prepared to use the brisecoque, but, having injected the bladder, could not find the least particle of stone remaining; so there is reason to believe that the fragment which came away this morning was the small piece I heard yesterday.

17th. The urine clear, and the patient quite well. The quantity of detritus collected, forty-nine grains.

The above operations were witnessed, at different times, by upwards of fifty medical gentlemen, all of whom spoke in the highest terms of admiration of the adroitness with which the Baron used his different instruments, and many were greatly surprised at the facility with which he introduced a straight instrument, as large as No. 18, into the bladder. The time that elapsed between the operations might have been much abridged, but I was fearful of exciting inflammation by too early a repetition, and therefore suffered several days to elapse, during which the patient ailed nothing, before I sent for the Baron, who never followed his own inclination as to the time, but always very politely came when requested.

The size of the stone in this man's case was very considerable, which is proved as well by some of the laminated fragments, which are segments of a large oval, as from the quantity of detritus which we have collected, amounting to seven drachms, (this may be seen at the infirmary of Greenwich Hospital,) independently of much which must have escaped at different times whenever he went to stool. Ten days have now elapsed since the last portion of stone was extracted, and the man is in the enjoyment of good health.

As the above case affords a proof of the success of an operation which is nearly new in this country, I consider it may be advantageous to the profession and the community at large to give it publicity.

POISONING BY ARSENIC AND LAUDANUM.

Poisoning by Arsenic and Laudanum combined, in which the Symptoms usually produced by Arsenic were absent. By EGERTON A. JENNINGS, F.L.S. Member of the Royal College of Surgeons, &c.

ON Saturday, August the 7th, I was requested to visit Marianne Warwick, who was reported to have taken poison. It appeared from the girl's own statement, that she had taken about three ounces of laudanum and a quantity of arsenic, which subsequent inquiry proved to be about two drachms. She took the poison about twelve o'clock, and I saw her soon after four. She had no pain in the stomach, bowels, or head; had no heat or burning in the throat; complained of no uneasiness when the abdomen was pressed upon, and was perfectly collected. She complained, however, of feeling tired and sleepy, which she said was occasioned by her having taken an emetic two hours before I saw her, which had acted violently and tired her very much. The only symptoms which she had, that were at all indicative of her having taken poison, were that her eyes were bloodshot and heavy, and the pupils contracted; she was rather disposed to sleep, the pulse was about 100, and the vomiting continued, perhaps, a little longer than might be expected from the effect of the emetic. The symptoms at no period prior to my seeing her had been more marked than at that time. In fact, so completely were all symp-

toms of poisoning by arsenic absent, that a physician and surgeon, who saw her in about an hour after she had taken the poison, and attended to her until I saw her, could not persuade themselves that she had taken poison at all, though the girl had stated such to be the fact.

My first effort was to get the stomach freely evacuated, taking care to preserve what was rejected for future analysis, as what had been previously vomited had unfortunately been thrown away. The stomach being well emptied, my attention was directed to counteract the effects of the laudanum, as the only marked symptoms were the effects of its action upon the brain. The usual medicines, together with bleeding from the jugular vein, leeches, blisters, and cold affusion were employed. The patient was kept constantly walking about. No alteration in the symptoms took place before half-past seven o'clock; excepting that she complained of being more drowsy, and with greater difficulty was kept awake, frequently dropping asleep, even while walked about. About half-past seven o'clock she once or twice complained of some pain in the bowels, but there was no tenderness on pressure, and no pain in the stomach. The bowels acted once, very comfortably, about this time. At eight o'clock she sunk into a state of coma, with dilated pupils and laborious breathing; before nine she died.

Examination of the body, sixteen hours after death. External appearance of the body healthy, abdomen not swelled. On removing the calvarium, more blood than natural was discharged from the vessels connecting it with the dura mater. The sinuses were loaded with dark blood: the dura mater was very vascular. On removing the dura mater, the parts presented a very turgid appearance, and the large veins which wind between the convolutions of the brain, instead of presenting their ordinary blue tint, were of a dirty treacle colour. The pia mater and arachnoid were healthy, but the former was more than usually loaded with blood. On cutting into the substance of the brain, the number of bloody points, from the division of vessels, was much greater than usual, and they presented the same dirty colour which I have endeavoured to describe above. The ventricles contained no fluid. The substance of the brain throughout was remarkably firm and healthy, and there was no effusion or other disease discovered in any part of it.

On opening the cavity of the abdomen, the stomach appeared large, and on its surface a few small vessels were

evident in one or two places, but nothing that would have attracted attention in an ordinary case. The lower part of the ileum presented several patches, where the vessels were finely injected and of a bright vermilion colour. The other organs in the abdomen presented, externally, no unhealthy appearance.

On opening the stomach, it was found to contain about half a pint of fluid, which was saved for analysis. Its mucous coat was generally rather pale, but at the great arch, near the pylorus, there were two patches which presented a red appearance; one about the size of a half-crown, the other about as large as a shilling. There was no ulceration, and, when the stomach was held to the light, no part of it appeared at all thinner than natural. In fact, the stomach presented no unnatural appearance, excepting the two red patches I have already mentioned, and very strongly marked rugæ, which were fully as prominent as those represented by Dr. BAILLIE, in fig. 2, plate 5, of the third fasciculus of his engravings of Morbid Anatomy.

The small intestines being removed from the body, and their contents collected, they were slit up in their whole course, so as to expose their inner coat. In the duodenum, the mucous membrane presented throughout a general light pink appearance. In the jejunum it was highly injected, and presented numerous patches of an intensely red colour. In the ileum the appearances of inflammation were less marked than in the jejunum, but it presented several patches acutely inflamed. These patches shone through the thin coats of the intestine, and occasioned the vascular appearance that had been observed through the peritoneal coat. No ulceration of the small intestines could be detected.

The cœcum and colon were healthy. There were not any ulcers in the rectum, nor any other disease of that part.

In the chest there was no appearance of disease, unless we describe as such a rather flaccid state of the heart, and a light leaden hue on the surface of the lungs. The large vessels about the heart were not more loaded than they are generally found, but the blood in them also was very dark, and appeared much loaded with carbon.

On analysis, the contents of the stomach exhibited a slight trace of arsenic. Sulphuretted hydrogen gas gave the fluid a yellow tinge. Dr. MARÇET's test with the nitrate of silver and ammonia threw down a very slight yellow precipitate, but no quantity of precipitates could be collected; from which I assume that the stomach had been almost completely emptied of the arsenic.

From the fluid contained in the small intestines, a sufficient quantity of precipitates could be collected to reduce the arsenic to its metallic state.

The fluid vomited at half-past four o'clock contained so much arsenic, that, from one half of it, many grains of the precipitates were collected, a large quantity of metallic arsenic reduced, and a very well-marked alloy formed with it and copper.

From the fact of arsenic being in the bowels, it is certain that that poison had been taken. From the girl's own statement, there can be no doubt of her having taken it about twelve o'clock; and, from the large quantities found in the fluid vomited, it is evident that a large quantity remained in the stomach for four hours: and yet, during the whole of this time, she presented no symptoms of poisoning by arsenic. In fact, if we refer to ORFILA's work on Poisons, we shall find that there was not one symptom of poisoning by arsenic which he enumerates, if we except vomiting; and the vomiting did not come on until two hours after the arsenic had been taken, and after an emetic with sulphate of zinc had been given; and the fluid vomited was neither brown nor bloody, as he describes, but appeared to be a mixture of the fluid swallowed and mucus. Even to the hour of death, excepting pain in the bowels, complained of once or twice, above seven hours after the poison had been taken, there was no symptom of poisoning by arsenic.

The appearances of the stomach on dissection were as unsatisfactory as the symptoms. The great arch, near the pylorus, from being the most depending part of the organ, is very frequently found on dissection to be red, from the blood settling in that part after death; and the vascularity in this case was not at all such as would have attracted attention under ordinary circumstances. As we trace the course of poison in the intestines, the appearances become more marked. In the jejunum the appearances of inflammation were very strongly marked, and in the ileum also; yet in the duodenum, through which the whole of the poison must have passed that entered the jejunum, they were much less apparent.

In the above case there can be no doubt that the patient died from the effects of the laudanum: it being certain that the girl took three ounces of laudanum, and the symptoms corresponding with the effects of that drug: but still, in connexion with medical jurisprudence, several interesting inquiries present themselves.

1st. After so large a quantity of laudanum had been taken, why did not more urgent symptoms of that poison present themselves at an earlier period? I think it must be acknowledged that four hours was a greater length of time than would be expected to elapse, after taking three ounces of laudanum, before decided symptoms presented themselves. During this time, too, it appears that sufficient opium was absorbed to occasion death; for neither in the fluid vomited after four o'clock, nor in the contents of the bowels, could any smell of laudanum be detected. Did the arsenic, by acting as a stimulant, counteract for a time the sedative effects of the opium? or did the arsenic, by occasioning constant effusion of fluid from the mucous coat of the stomach, render its absorption less rapid?

2d. Why did the arsenic appear to produce no effect until it had passed into the intestines, and even then no marked effect until it had proceeded as far as the jejunum? Did the opium render the stomach so far insensible to the action of the arsenic as to prevent it from producing inflammation of the organ? For inflammation we should naturally expect to find, after arsenic had remained in the stomach in considerable quantities for above four hours, which it must have done in this case, from the quantity vomited after four o'clock. The opium, I apprehend, must have produced this effect: for, when the arsenic had proceeded as far as the jejunum, which probably had not been acted upon by the opium, we find the parts acutely inflamed, and at half-past seven in the evening the patient complained of pain in the bowels.

That arsenic does not always produce pain, I am aware. Several cases are on record in which pain did not occur: but I do not remember to have met with any case in which arsenic and laudanum in large doses had both been taken, where the symptoms of arsenic have all of them been so completely wanting, and where the appearances on dissection have been exactly similar. I have therefore thought this case worth placing upon record.

Leamington Spa; August 16, 1830.

PUERPERAL FEVERS.

Observations on the Puerperal Fevers which occurred at the Maternité of Paris in 1829; on the various Modes of Treatment that were adopted, and particularly on Mercurials, Emetics, and Bloodletting. By M. Tonnellé.*

In the preceding articles which we have given upon this subject, M. Tonnellé describes simple imflammation of the uterus and its appendages, and suppuration of the veins and lymphatics. We now arrive at his third division of the morbid appearances of the uterus, which consists of *a softened or putrescent state of the uterus.* This morbid alteration had been long overlooked; but lately it has been the theme of many investigations, particularly with the German pathologists, who have much improved our knowledge of the subject. Very recently, Luroth of Strasbourg, and Dr. Danyan, have given very correct descriptions of it.

A softened condition of the uterus, after having been frequently observed in the first half of the year 1829, and especially in January, disappeared almost entirely during the months of July and August, when uterine phlebitis was very frequent. In September and October it was again common; during November and December it disappeared, and at this latter period the mortality among the puerperal patients was very trifling. It existed in two principal forms, of which Boër and Luroth have made two distinct diseases: "*Ramollissement,*" properly so called, and a putrid condition, which are evidently but different degrees of one affection, as M. Desormeaux has observed.† In the first form, the internal surface of the uterus alone was softened. It presented itself in superficial patches, of a reddish brown colour, and of irregular form, which occupied various points of the surface. The limits of these patches were not strongly marked, the diseased tissue being confounded with the healthy structure by insensible shades and gradations. In the second variety, the softening was deeper, and of greater superficial extent. It sometimes implicated the whole substance of the body or neck of the uterus; and then the tissue of the organ was so soft that it was penetrated when taken hold of by the fingers. In both cases the softened parts had a strong putrid odour; but we cannot affirm that this odour emanated from the altered tissue. It appeared frequently to arise from the putrescent membrane which almost constantly lines the internal surface of the uterus in this case, and which is observed in many other conditions. The superficial softening of the uterus was usually combined with some other morbid alteration, as inflammation of the uterus, peritonitis, or uterine phlebitis, and it has not appeared that its existence had much influence upon the progress of the symptoms. The second variety was also sometimes united with other disorders, but it generally constituted the principal alteration, and frequently the only one, and it constantly gave to the disease a well-marked typhoid character, the progress of which was most rapid. The following example, and many of those recorded by Danyan, establish this fact.

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* Archives Gen. Avril 1830.
† Diction. de Méd.

CASE XV. *Putrid State of the Uterus, accompanied by severe Symptoms. Death in twenty-four hours.*

Roy. . ., æt. thirty, of a good constitution, was delivered after a favorable labour on the 10th October. In the night of the 12th she had some pain in the abdomen, accompanied by shivering. In the morning the belly was swollen and tender to the touch; features drawn; tongue dry; pulse small and frequent. Instead of the lochia, there was a fetid puriform discharge. In the day the patient was delirious and much agitated. In the evening she fell into a profound stupor, became cold, and died twenty-four hours from the attack.

Leeches were first applied to the belly, and mercurial frictions were freely employed.

Dissection. The uterus occupied nearly the whole cavity of the pelvis. About two thirds of its body, and the whole of its substance, were reduced into a brown pulp, which retained no traces of organization, and broke easily under the finger. Its internal surface was covered with a thick layer of semi-fluid matter, brown and very fetid. In the peritoneal cavity was a small quantity of bloody serum. All the organs were soft and flaccid.

Some of the septic matter, absorbed during the examination of the body, from an excoriation on the finger, almost immediately produced severe local and general symptoms; and still these deleterious properties could hardly be the result of putrefaction, for death had only taken place eighteen hours before, and the body had not undergone the slightest decomposition.

What is the nature of this alteration of the uterus? Is it a real gangrenous degeneration? or is it, on the contrary, a simple softening, analogous to that we observe in other organs, as the brain, heart, stomach, &c.? Are we to consider inflammation as the cause of it? The brown colour of the softened parts, the fetid odour which they exhale, and the softened condition itself, are evidently the only foundations upon which the idea of gangrene can rest. But it may be doubted whether the existence of these characters is sufficient to justify the opinion. The brown colour is not always the constant, nor particularly the immediate, effect of gangrene: it frequently exists in many other alterations, quite different from the preceding; as in a softened state of the stomach, œsophagus, &c., and the infiltration of a certain quantity of blood in the texture of the tissues is sufficient to produce it. The ramollissement, in our opinion, rather bears evidence against a gangrenous degeneration, than in favor of its existence. In the deep-seated gangrenes which affect the muscular substance, and which may be compared to that which attacks the stomach, the mortified tissues are indeed flaccid and shrunken, but they are not so soft as to be penetrated by the finger. As to the odour, we have already observed that it appears to arise less from the degenerated parts, than from the putrid matter which adheres to the surface of the uterus.

Another more decisive fact bears upon this question. The morbid alteration of which we are now speaking diminishes progressively, and ceases insensibly. Gangrene, on the contrary, is always limited and circumscribed. Different degrees of softening may be conceived, but not of mortification. We are inclined to believe that this alteration is nothing more than a simple ramollissement. But what share has inflammatory action in its production? PFEUFFER, WENZEL, and DANYAN, attribute it to inflammation. Professor BOER, JŒRG,* and most of the German writers, according to M. LUROTH, are of a contrary opinion, and each supports his view by plausible arguments. The important question, however, to ascertain is, whether inflammation is accessory and secondary, or whether it is essential and primary. It is easy to solve this question when it is thus stated. Ordinary inflammation, however severe it may be, presents during its developement several successive and regular stages, and certain constant and determinate symptoms, which are not found in the case we are now considering. It never, from its beginning, produces the very severe symptoms which almost always accompany ramollissement of the uterus. It does not destroy life with such terrible rapidity, especially when it affects an organ which is not immediately necessary to the existence of the individual. It appears evident, then, that inflammation in such cases is but an accessory phenomenon, and a sort of veil behind which is concealed the really active cause. It is difficult to determine the precise nature of this cause: we have many reasons for believing that it depends upon a vitiated condition of the blood, but we confess that facts are yet wanting to support this, at present, hypothetical opinion.

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* M. Tonnellé gives no reference; but we find that Jærg is decidedly of opinion that this putrescent state of the uterus does not result from inflammatory action. Jœrg *Handbuch der Krankheiten des Weibes*, par. 708 et seq.—ED.

Such are the various morbid appearances which we have observed in puerperal fever; a disease which is as complicated in its structural lesions, as we shall shortly prove it to be in its symptoms. The following tables present a general view of these different alterations.

In 222 bodies of patients who had died of puerperal fever, we found peritonitis in 193; disease of the uterus and its appendages in 197; there were various combinations of morbid appearances of the uterus and peritoneum in 165 cases; in 28 the peritoneum alone was affected; in 29 the uterus alone. If we now state separately each alteration of the uterus, as we have done in our description, we find, 1st. *Alteration of the body of the uterus:* simple metritis, 79; superficial softening, 29; softening of the substance of the organ, 20; ovarial inflammation, 58; ovarial inflammation with abscess, 4. 2d. *Alteration of the uterine vessels:* pus in the veins, 90; pus in the lymphatics, 32; pus in veins, lymphatics, and also in the thoracic duct, 3; pus in the vessels, with inflammation and suppuration of the lumbar and inguinal glands, &c. 9.

It will be perceived that the morbid appearances of the uterus, considered separately, were much more numerous than those of the peritoneum. Their number is, indeed, greater than that of the bodies examined; a result which may at first appear paradoxical, but which depends upon several different alterations of the uterus, &c. having been detected in the same subject. Let us now consider the most important of these combinations. 1st. *Suppuration of the veins* was accompanied by a similar state of the uterus in 32 instances; by putrescence, or ramollissement, in 11; by metritis and ramollissement together, in 5; by peritonitis alone, in 34. In eight cases there was suppuration in

toms of poisoning by arsenic absent, that a physician and surgeon, who saw her in about an hour after she had taken the poison, and attended to her until I saw her, could not persuade themselves that she had taken poison at all, though the girl had stated such to be the fact.

My first effort was to get the stomach freely evacuated, taking care to preserve what was rejected for future analysis, as what had been previously vomited had unfortunately been thrown away. The stomach being well emptied, my attention was directed to counteract the effects of the laudanum, as the only marked symptoms were the effects of its action upon the brain. The usual medicines, together with bleeding from the jugular vein, leeches, blisters, and cold affusion were employed. The patient was kept constantly walking about. No alteration in the symptoms took place before half-past seven o'clock; excepting that she complained of being more drowsy, and with greater difficulty was kept awake, frequently dropping asleep, even while walked about. About half-past seven o'clock she once or twice complained of some pain in the bowels, but there was no tenderness on pressure, and no pain in the stomach. The bowels acted once, very comfortably, about this time. At eight o'clock she sunk into a state of coma, with dilated pupils and laborious breathing; before nine she died.

Examination of the body, sixteen hours after death. External appearance of the body healthy, abdomen not swelled. On removing the calvarium, more blood than natural was discharged from the vessels connecting it with the dura mater. The sinuses were loaded with dark blood: the dura mater was very vascular. On removing the dura mater, the parts presented a very turgid appearance, and the large veins which wind between the convolutions of the brain, instead of presenting their ordinary blue tint, were of a dirty treacle colour. The pia mater and arachnoid were healthy, but the former was more than usually loaded with blood. On cutting into the substance of the brain, the number of bloody points, from the division of vessels, was much greater than usual, and they presented the same dirty colour which I have endeavoured to describe above. The ventricles contained no fluid. The substance of the brain throughout was remarkably firm and healthy, and there was no effusion or other disease discovered in any part of it.

On opening the cavity of the abdomen, the stomach appeared large, and on its surface a few small vessels were

evident in one or two places, but nothing that would have attracted attention in an ordinary case. The lower part of the ileum presented several patches, where the vessels were finely injected and of a bright vermilion colour. The other organs in the abdomen presented, externally, no unhealthy appearance.

On opening the stomach, it was found to contain about half a pint of fluid, which was saved for analysis. Its mucous coat was generally rather pale, but at the great arch, near the pylorus, there were two patches which presented a red appearance; one about the size of a half-crown, the other about as large as a shilling. There was no ulceration, and, when the stomach was held to the light, no part of it appeared at all thinner than natural. In fact, the stomach presented no unnatural appearance, excepting the two red patches I have already mentioned, and very strongly marked rugæ, which were fully as prominent as those represented by Dr. Baillie, in fig. 2, plate 5, of the third fasciculus of his engravings of Morbid Anatomy.

The small intestines being removed from the body, and their contents collected, they were slit up in their whole course, so as to expose their inner coat. In the duodenum, the mucous membrane presented throughout a general light pink appearance. In the jejunum it was highly injected, and presented numerous patches of an intensely red colour. In the ileum the appearances of inflammation were less marked than in the jejunum, but it presented several patches acutely inflamed. These patches shone through the thin coats of the intestine, and occasioned the vascular appearance that had been observed through the peritoneal coat. No ulceration of the small intestines could be detected.

The cœcum and colon were healthy. There were not any ulcers in the rectum, nor any other disease of that part.

In the chest there was no appearance of disease, unless we describe as such a rather flaccid state of the heart, and a light leaden hue on the surface of the lungs. The large vessels about the heart were not more loaded than they are generally found, but the blood in them also was very dark, and appeared much loaded with carbon.

On analysis, the contents of the stomach exhibited a slight trace of arsenic. Sulphuretted hydrogen gas gave the fluid a yellow tinge. Dr. Marçet's test with the nitrate of silver and ammonia threw down a very slight yellow precipitate, but no quantity of precipitates could be

toms of poisoning by arsenic absent, that a physician and surgeon, who saw her in about an hour after she had taken the poison, and attended to her until I saw her, could not persuade themselves that she had taken poison at all, though the girl had stated such to be the fact.

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On opening the cavity of the abdomen, the stomach appeared large, and on its surface a few small vessels were

diet and bleeding.* It is in this manner that such evacuations have appeared to us to be evidently critical phenomena.

The duration of the first period of the disease is so variable, that it is hardly possible to fix its limits: this difference depends less upon idiosyncrasies and individual predispositions than upon the constitution of the atmosphere. In sporadic cases, indeed, a certain regularity was observed; but in the epidemic type there was nothing fixed nor precise. The transition from the first to the second period was frequently accompanied by a temporary amendment and renewed rigors of short duration, and it is doubtless this circumstance which has induced some physicians to class the disease among remittent fevers. When effusion or suppuration was formed, the pain sometimes became dull and deep-seated; but it often retained its acute character, and even became more severe. At the same time the abdominal parietes were distended by flatus, which also pushed up the diaphragm, and thus added greatly to the already existing dyspnœa. It was not uncommon at this period for a fetid discharge to take place from the vagina, and pus to form in the breasts. To the vascular congestions observed in the first stage, local inflammations of the pleura or lungs, or copious evacuations of bile, frequently succeeded, and thus a serious complication of disease was formed. Sometimes the agitation and general heat continued to the end of the disease, the pulse preserving its rapidity and hardness, the strength at the same time not flagging, and the patient dying in full possession of her faculties. At other times, on the contrary, all the functions were oppressed, and the fatal termination occurred after long suffering. When the disease was about to end favorably, abundant sweats usually broke out: this phenomenon has been noticed by most observers, and particularly HOFFMAN (Medicina Ration. t. iv. p. 317,) LEAKE (on Childbed Fever, p. 56,) and DOUBLET, who sometimes observed these sweats continue for twenty-four, thirty-six, or even seventy-five hours. Diarrhœa also almost always occurred at this period.

The typhoid form was most frequent, and existed in most cases of ramollissement of the uterus, or suppuration of the veins or lymphatics, whether the pus was primarily formed in the vessels or carried into them by absorption. It was generally preceded by the ephemeral inflammatory form above described. It may perhaps be objected, if typhoid puerperal fever is mostly the result of local inflammation, that a distinct species should be made of it. We reply, that in most cases the typhoid form *is* a secondary effect, but *an effect* which in its turn becomes a *cause*, and a cause so powerful as to impart a new character to the disease, and to change its nature, and thus to create special therapeutic indications. The remote causes of typhoid puerperal fever almost always may be referred to suppuration of the veins or lymphatics of the uterus, and to ramollissement of this organ. The immediate cause is an alteration of the blood, which is sometimes of an unknown nature, and insusceptible of demonstration, as in cases of ramollissement. It is sometimes evident and palpable, as in suppuration* of the vessels. To these primitive morbid alterations were ordinarily added several others, as abscesses of the lungs, liver, pancreas, muscles, joints, pleurisies, circumscribed pneumonia, gangrene of the lungs, disorganization and perforation of the stomach, flaccidity of the tissues, and frequently ramollissement of all the organs, a fluid and altered aspect of the blood, &c. Some of the symptoms were the immediate result of purulent absorption; others, the secondary effect of different organic lesions, consecutive to infection of the blood. From the commencement there was an air of languor and depression, either with or without diminution of the abdominal pains, which never deceived the well-practised eye of M. Desormeaux. Later in the disease, the intellectual faculties were disturbed, skin of a yellowish tinge, the face sometimes of a purplish blush, an appearance of prostration, eye dry and dull, buzzing in the ear, impediment of speech, mild and gloomy delirium, stupor, and but rarely great agitation and shrieks. To these symptoms were constantly added a very quick, small, and irregular pulse, dyspnœa, swelling of the abdomen, local sloughs, viscid sweats, sanious discharge from the vagina; brown, fetid, and very abundant alvine evacuations passed involuntarily, and very different from those observed in the inflammatory form. These symptoms were not all present, excepting in a few of the severest cases; but some of these essential features were always observed, as may be seen by referring to the cases before detailed.

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* Our own experience leads us to answer this question in the negative. In inflammatory puerperal fever, active purgatives are often of great service, but free spontaneous diarrhœa has not appeared to us to exert a similar influence upon the disease. We would not endeavour suddenly to check such evacuations, but we should look upon their continuance with alarm.—ED.

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* We again remind the reader that M. Tonnellé implies by the term "*suppuration des Vaisseaux*," nothing more than the simple fact of *pus* being found in the vessels.—Ed.

In the midst of this great disorder of the functions, the secondary alterations of the solids were sometimes not detected. Their developement was generally very rapid, and the symptoms insidious and obscure, and so confounded with those of the principal disease that they escaped the most scrupulous attention. The local diseases which were most completely latent were those of the liver, pancreas, and joints; certain cases of pneumonia and pleurisy; others, as gangrene of the lungs (Case vii.), and disorganization and perforation of the stomach (Cases vi. xiv.), sometimes gave rise to symptoms which led to a suspicion of the nature of the mischief during life, but which were never sufficiently well marked to allow the practitioner to detect the beginning of the local disease, or to follow its progress. Abscesses in the muscles commenced insidiously, and might easily have escaped a superficial examination; but M. Desormeaux never failed to detect them, by the conscientious attention he bestowed upon his patients. When the disease terminated favorably, the matter in these abscesses was sometimes gradually absorbed, and no trace was left of its existence, or it gradually approached the surface, and its evacuation became necessary. When the abscess was of small extent, the parts were easily restored to a healthy state; but otherwise, extensive depositions of pus followed, with deep-seated destruction of the tissues, and the life of the patient was thus exposed to new perils.

The *anomalous* or *ataxic* form was rarely observed except during the course of an epidemic. Its chief signs were, great irregularity in the march of the symptoms; agitation, delirium alternating with depression, syncope, paroxysms of suffocation, irregularity in the circulation, and heat of the body; and frequently marks of intense peritoneal or uterine inflammation. Upon dissection, there was scarcely any appreciable alteration detected, and certainly none which could explain the death of the patient. To give a more correct idea of this variety of the disease, we detail a few cases.

Case I. *Puerperal Fever, with Ataxic Symptoms from the commencement.*

Bartholo. . ., æt. twenty-one, of good constitution, had a natural labour, August 29th. Second day from delivery, she had prolonged rigors, followed by free sweating and some abdominal pains. Evening: Great agitation and violent delirium, which lasted the greater part of the night. Morning: Calm, but somewhat depressed; abdomen tender upon pressure; liquid stools, and very frequent; breasts empty and flaccid; pulse small and quick; lochia continue.

Fourth day. Syncope and several bilious vomitings; tumefaction of the belly; pains had ceased. Evening: A violent attack of dyspnœa came on, and gave place to profound prostration.

Fifth day. Abdominal pains returned, together with agitation and delirium. Diarrhœa ceased spontaneously.

Sixth day. Cold sweats, quick breathing, and irregular pulse; vomiting and involuntary alvine discharges. Died the next day.

Fifty leeches were twice applied, and afterwards mercurial frictions were employed, in the quantity of two ounces each day. A few doses of calomel were given. M. Desormeaux superintended the treatment.

Dissection, twenty-four hours post mortem. A small quantity of limpid serous fluid in the abdomen, and a slightly injected appearance of the peritoneum around the uterus. Two or three of the uterine veins contained a small quantity of turbid serum, which appeared to be the rudiment of pus; uterus contracted and healthy. The mucous membrane of the stomach and intestines quite white throughout its whole extent. Lungs engorged, but crepitant. Heart half filled with blood of a brown colour. Brain firm, and slightly injected. Other organs natural in appearance.

CASE II. *Puerperal Fever, with Ataxic Symptoms, consecutive to Inflammatory Symptoms: Progress acute.*

Lina Hof.,., æt. twenty-two, weak and nervous, miscarried the first month of her pregnancy, from which she had suffered much: pains in the loins and hypogastrium, and rigors, almost immediately followed abortion. Evening: Severity of symptoms increased; abundant bilious vomiting.

Second day. Great prostration; taciturn delirium. Pressure upon the abdomen appeared painful, from the expression of the countenance. Lochial discharge uninterrupted. During the day she remained in a state of profound coma; but in the evening she was restless and agitated, and frequently endeavoured to get up. Repeated vomiting.

Third day. Recovery of consciousness, and vague and confused expressions of complaint; but the eye was dull, extremities cold, and pulse irregular. Death.

The inflammatory symptoms from the commencement were treated by ipecacuanha;* forty leeches were then applied to the abdomen, and afterwards free mercurial frictions, blisters, and sinapisms were used.

Dissection, thirty hours post mortem. Peritoneum slightly injected, and in the abdomen were about four ounces of rose-coloured fluid. Internal membrane of the uterus healthy, and covered with vermilion blood: towards the cervix was seen a layer of concrete pus. A semitransparent lymph filled some of the uterine veins; most of the others were empty. Other parts healthy; the brain was carefully examined.

CASE III. *Puerperal Fever, with prolonged Ataxic Symptoms, alternating with inflammatory Symptoms.*

Virginie Car..., æt. twenty-one, of weak and nervous constitution, was favorably delivered at the eighth month of pregnancy. At first no particular symptom arose; but on the fourth day she had shivering and a long fainting fit.

Evening, and next day. Great pains in the abdomen, with diarrhœa and fever. Fifty leeches were twice applied.

Sixth day. Attack of dyspnœa, which was relieved by thirty leeches to the side.

Seventh day. Free from suffering: diarrhœa has ceased.

Eighth. Syncope, and some pains in the abdomen.

Ninth. Another severe attack of dyspnœa, for which a blister was applied to the chest.

Tenth. In the morning free from complaint, but in the evening delirium occurred.

The following day, coma, which was soon followed by death.

The lochial discharge continued throughout the course of the disease, at first sanguineous, and then serous, and in diminished quantity.

Upon dissection, the peritoneum was found slightly injected, and it contained about a pint of rose-coloured serum. Uterus of large size: its tissue white and firm, and its veins half filled with fluid blood. Lymphatics natural. The internal surface of the uterus was covered with brown fetid blood, but in other respects it appeared healthy. Cervix uteri had an appearance of ecchymosis, and was covered with a thin greyish exudation. Other organs healthy.

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* Doses not mentioned.—ED.

These examples are sufficient to give an idea of the ataxic form of puerperal fever. It will be observed that the morbid appearances in these cases were neither numerous nor important, and it would be difficult to connect them with the symptoms which existed during life. The lesions which were detected may, indeed, to a certain extent, explain the pains, vomiting, and fever, which occurred, although these symptoms usually correspond with more extensive and serious alteration of parts. But to what organic lesion can we refer the agitation, delirium, prostration, syncope, cold sweats, dyspnœa, rapid and small pulse, and the irregular paroxysms and unequal progress of the disease. What was the nature and *point de départ* of these symptoms? In the first place, it is evident that they were such as the ancient writers denominated "*ataxic*," and, symptomatically speaking, the designation was happily selected, for disorder and irregularity are its distinctive attributes. As they were ignorant of the *point de départ*, they could do no more than name them by one of their most striking characteristics. But now that the progress of medicine permits us to pass from the observation of symptoms (to which the ancients were greatly attached,) to the study of the various organic lesions which correspond with them: now, when we can no longer conceive the existence of one without the other, the expression of "ataxic symptoms," or the abstract term of "ataxia," which comprehends them all, will not alone impart to us the idea of a peculiar kind of functional derangement, but also of some organic alteration from which the symptoms originate. But what organ is diseased in these cases? It cannot be doubted that ataxic symptoms in general, as well as those particular ones we have just enumerated, emanate from the nervous system. But in what manner is this system altered? Here arises the difficulty; for we may assert what it is not, but not what it is. We know that it is not always a lesion of that kind called *irritation** or *inflammation*, which leaves after death appreciable traces of their existence; and that, consequently, whatever may have been said to the contrary, the term "ataxia" is not synonimous with cerebritis, encephalitis, as is proved by the previous cases. But it is as impossible, in the present state of our knowledge, to determine the precise nature of this alteration, however well we may be acquainted with its effects, as it would be to show the cause of various other nervous diseases, as mania, epilepsy, chorea, &c. The term ataxia may therefore be retained without inconvenience: it ought, indeed, to be retained so long as we cannot ascertain the kind of lesion of the brain upon which ataxic symptoms depend. As we know not the essence of the disease, we could but substitute one term for another, without at all enlightening the question.

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* It is to be regretted that M. Tonnelle has not stated what he conceives *are* the post-mortem traces of *irritation*.—ED.

Let us now examine what connexion there exists between this state of ataxia and the puerperal disease, and whether the lesion of the nervous system was the result of the alteration of the uterus and peritoneum which was observed, or whether the contrary was the fact; and, in either case, what influence the one produces upon the other. If we refer to the previous examples, we find that the symptoms of disease of the peritoneum and uterus constantly preceded the ataxic symptoms, and that thus we might infer the former to be the cause of the latter. On the other hand, it appears probable that the disturbance of the nervous system interfered with the progress of the primitive malady, and arrested its developement. We cannot otherwise understand why the morbid appearances should have been so limited and so slight, especially in the first and third cases, where death did not take place till the sixth and seventh day.

In reference to the second question, how the developement of the ataxic symptoms is connected with peritonitis or metritis, we might endeavour to explain the fact by the sympathetic influence of the peritoneum and uterus upon the brain. It might, in addition, be urged that pregnancy and delivery exalt the sensibility of the woman, increase the susceptibility of the brain, and thus dispose the organ to disease. But we should scarcely know how to defend ourselves if it were objected that the term *sympathy* merely expresses the fact of the co-existence of both morbid conditions, without explaining it in any manner, and that it is better to remain in ignorance than to employ indefinite words, to which a positive meaning may at last be attributed that they really do not possess. It is therefore wiser to limit ourselves to the proof of the fact, without endeavouring to explain it. We must anticipate one objection which may be made relative to the morbid condition of which we have been speaking. It may be said, that if these ataxic symptoms are but the result of inflammation of the peritoneum and uterus, they ought not to be separately discussed, any more than vomiting and diarrhœa, which are also frequent accompaniments of these affections. The objection is merely specious: for, although the lesion of the nervous system appears to us to be consecutive, it is a new affection, which, as we have already remarked respecting the typhoid form of puerperal fever, absorbs, as it were, the primary disease, produces peculiar symptoms, a special danger, and, as the preceding cases show, destroys by its own power, long before the primitive alteration of parts could have done so. We ask, therefore, whether these characteristics are not sufficient to distinguish this kind of disease from the preceding, and to admit of its being made a special genus.

We have now described the three forms under which puerperal fevers have been offered to our observation, and we append a synoptical table which combines them all in one view, and classes them according to their varieties. We by no means assert that puerperal fever will always be exhibited in either of these forms, and that it can assume no other. The observation of a day cannot limit the range of disease. At different periods very different forms of maladies exist, and years of investigation must be required to embrace the whole.

Table of the different Forms of Puerperal Fevers which have been described.

Puerperal Fever, or Disease.	Inflammatory form, or simple inflammation of different organs	Peritoneum, Uterus and its appendages.
	Typhoid form, or from alteration of the blood	*Consecutive* to suppuration of the vessels. Concomitant with a state of putrescence or ramollissement.
	Ataxic form, or from lesion of the nervous system.	

HOSPITAL REPORTS.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.

Case of Gonorrhœal Ophthalmia.

James Hale, æt. twenty-one, living at No. 2, Kendal's Mews, George street, Portman square, was admitted Thursday, April 1st, having gonorrhœal ophthalmia. Contracted gonorrhœa three weeks since, and has suffered from ardor urinæ and discharge from the urethra for about fourteen days. Has taken balsam of copaiba, and lost the running and other symptoms on Friday last. On the Saturday, and the early part of Sunday, he considered himself quite well, but towards the evening he suffered from slight irritation at the inner corner of the right eye; but was entirely free from pain till the Monday evening. He then complained of a burning pain in the eye, suffered some inconvenience from light, and perceived the upper lid to be swollen. This continued to increase during the night, and on the following morning was attended with a copious clear discharge. During the day the pain and swelling increased, and towards evening the discharge became thicker. He passed a bad night, suffering from great pain; was gradually becoming worse on the Wednesday, and presented himself this morning for relief.

There is considerable swelling of both lids, especially the upper one; great inflammation of the conjunctiva and chemosis, so that the cornea appears quite depressed, but is perfectly clear and the pupil regular. Complains of increase of pain in the eyelids and eye towards evening, or on exposure to light. Sight of this eye very dim.

He has had gonorrhœa before, without any affection of the eye. Is not aware of having transferred any of the morbid matter from the urethra to the eye. Had three leeches applied last night, but without any relief. His pulse is regular, tongue slightly furred, bowels confined.

A large quantity of the fresh-made or strongest nitrate of silver ointment was applied to the eye by Mr. Guthrie, and the lids then gently rubbed, so that it might be diffused equally over the conjunctiva. He was then cupped on the temple to twenty ounces, and ordered to foment the eye constantly.—Hydr. Subm. gr. v. h. s. Pulv. Jalap. c. ʒi. mane.

April 2d. The ointment caused considerable pain in the head and eye, which was, however, entirely removed by the cupping. Passed a good night; suffers no pain now in the head, and but little in the eye. Bowels well acted on by the medicine. Tumefaction of the lids greatly reduced; chemosis less, cornea clear, pupil regular; discharge continues, and is of a thicker character. On the whole, great improvement. The application of the ointment was repeated in moderate quantity at twelve o'clock.

April 3d. Was very easy last night, and free from pain; can open the eyelids himself, and see a little with the eye. The chemosis is less; but the cornea not so transparent as it ought to be, and the iris is slightly affected. Has no pain in the brow. Discharge still great. The ointment repeated; to be well purged, and cupped to twelve ounces in the evening.

4th. Slept well, and had not any pain in the night; discharge less; can open the eye better, the upper lid being much less swelled; less chemosis; cornea shows signs of commencing ulceration in the centre. Says that he feels greatly better in every way. Ointment applied, and twelve ounces of blood taken from the temple. Haust. Aper.

5th. Better in every way. The ointment and purgative medicines repeated.

6th. Has passed a good night: less pain and uneasiness; can now open the eye easily; ulceration has ceased to spread; chemosis whiter and diminished; cornea more transparent; discharge very much diminished; pupil dilated; iris a little discoloured.—Rep. Unguentum. Capiat Hydr. Submur. gr. ij. sextis horis. Ung. Hydrargyri ʒss illin. fronti o. n.

7th. Feels better, and is so in every respect: the ulcer is flat and broad, but not deep, and is slightly opaque. To continue all the medicines.

8th. Ulcer presents the same appearance, with the exception of slight increase of opacity. Bowels open; mouth unaffected: complains of slight superficial pain. Rep. med. et ung.

9th. Has had a good night: is entirely free from pain, and the discharge has ceased. Pupil natural; iris discoloured, and acts sluggishly; ulcer appears rather deeper, and there is some increase of redness at the lower part of the conjunctiva. Mouth rather sore; slight salivation.—Omitt. pil. Rep. Ung. Arg. Nitr.

10th. Slept well last night, and is quite free from pain; pupil rather dilated; iris natural; ulcer has not spread; the inflammation of the conjunctiva and chemosis much the same as yesterday. Says that his eye feels easier today than since his admission. Mouth still sore.—C. c. ad ℥xij. Pulv. Jalap. c. ʒi. statim sumendus. Omitte alia.

11th. Slight discharge of cold water from the eye, but no purulent matter: ulcer in the cornea is in the same state.—Ung. Arg. Nitr.

12th. Empl. Canth. nuchæ.

13th. No pain; sight very little impaired. Lotio Aluminis.

14th. Improving. Ung. Arg. Nitr. Pulv. Jalap. c. ʒi.

15th. Free from pain; no discharge; inflammation of the conjunctiva disappearing; ulcer healing. Gutt. Arg. Nitr. gr. iv. ad ℥i. 16th. Ung. Arg. Nitr.

27th. The nitrate of silver ointment has been repeated regularly every other day since the last date, and he is now well enough to return to his occupations. The slightest possible opacity only remains where the ulcer of the cornea was, and that does not in the least interfere with his sight.

LONDON HOSPITAL,

Efficacy of Croton Oil in Cases of obstinate Constipation, &c.[*]

Case I. John Hickman, ætatis twenty-one, was admitted an in-patient of the hospital on the 24th of August. He represented his illness to have commenced ten days before, with a violent twisting pain in the bowels, attended by constipation. During that time his medical attendant had given him 160 grains of calomel, a pound and a half of salts, and a pound of castor oil, besides venesection, twice, to the amount of sixteen ounces each time, with enemata innumerable. The removal of this patient from his bed to the hospital caused a general depression. On his arrival, his pulse was scarcely perceptible: pain on pressure of the abdomen. Two pills, each containing one minim of Croton Oil, were given immediately, and, as re-action did not take place for some time, he was put into a warm bath. When put to bed a second time, the bowels began to act, and continued all night and part of the following day, when an immense quantity of feculent matter was dislodged: by this all pain and uneasiness was removed, and in a fortnight he was discharged, cured.

Case II. Mary Ann Robertson, ætatis sixteen, reported on her admission that, for four months before, her belly had gradually increased in size; that she had been under medical treatment out of doors, but without having derived any benefit.

After her admission, three days were allowed to pass without entering on any particular plan of treatment, as the fluctuation was very obscure. After the lapse of that time, two minims of Croton Oil were administered in the evening, which began to operate about twelve o'clock, p.m. The number of stools were not counted by this patient, as she was greatly distressed by the involuntary discharge of urine. So great was the quantity discharged, that it ran through the bed, and literally overflowed the ward: the tumefaction entirely subsided; and in ten days she was discharged cured.

HOTEL DIEU.

Foreign Body in the Trachea; Tracheotomy; with Practical Observations on the Operation. By M. Dupuytren.[†]

A child, eight years of age, having been sent on an errand by her mother, was tempted by the sight of a kidney bean, which was lying in a grocer's shop. She snatched it up, and put it quickly in her mouth to conceal it. She did this precipitately, and at the moment of inspiring deeply, so that the bean entered the larynx and passed into the trachea, where it remained. Violent cough and paroxysms of suffocation immediately took place. The accident happened on the 13th February, 1830. Several physicians were called in, and an emetic was given, which produced severe vomiting, but did not cause the expulsion of the foreign body. During the remainder of the day, the little patient was sometimes free from suffering, at others threatened with suffocation.

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[*] From Dr. Short's Practical Remarks on Croton Oil.

[†] Journal Hebdomadaire, &c. No. 80.

12th. In the evening she was admitted into the Hotel Dieu, under the care of M. Dupuytren. She passed a very restless night. The attacks of suffocation were very violent, and were frequently followed by prolonged insensibility, which placed her in great danger.

In the morning she was much troubled with violent cough. Upon applying the ear to the neck opposite the trachea, a peculiar rustling noise was heard, and the sound of the foreign body in the canal was perceived. The indication was evident. It was necessary to remove the foreign body by making an opening into the aerial passage, and M. Dupuytren determined upon the operation of tracheotomy, which was performed on the 13th, in the following manner. A few minutes before the operation, attempts were again made to hear the shock of the foreign body against the sides of the canal, but it was not now distinct. We shall afterwards refer to this important sign, and also to the cause of its absence at the moment of the operation.

The child was placed upon a bed, and held by assistants, the head being thrown back. An incision, about one inch and a quarter long, was made upon the median line, and a little above the superior edge of the sternum. The skin alone was first divided, and then, very cautiously, the subcutaneous cellular tissue. The muscles were moved on each side, and the trachea was exposed without a single blood-vessel being divided or tied. M. Dupuytren, then, by means of a straight-pointed bistoury, directed upon the nail of the left index finger, divided, in a vertical direction, several of the cartilaginous rings of the trachea and the fibrous membrane which unites them. At first no air escaped, and the voice of the patient remained entirely unaltered, much to the surprise of the surgeon and his assistants. But the incision being enlarged a little upwards and downwards, and the edges of the wound held apart by forceps, air immediately escaped. The child's head was now slightly bent forwards, and air passed out more freely: her voice became more powerful, and, after some violent efforts at expiration, the bean was expelled, covered with bloody mucus, and fell upon the patient's chest. The respiration was now natural; the attacks of suffocation and cough ceased, and the child in fact appeared to be perfectly free from complaint. The edges of the wound were carefully cleansed from the frothy blood which covered them, and were not brought together. A compress of lint, covered with a simple dressing, and with a hole in the centre, was placed upon the fore part of the neck. No lint was laid over it, but merely a fine compress, which was retained by a very loose bandage. The bean was about five lines in length, and three in breadth: it was a little swollen. In the evening the patient was very feverish. V.S. She passed a comfortable night.

14th. Air passed freely through the wound, and respiration appeared to be carried on almost entirely through the artificial opening. From the mucous secretion which obstructed the breathing, it was rather noisy. Pain in the larynx; occasional dyspnœa. Fifteen leeches were applied to the sides of the neck; mild drinks ordered. The leeches drew blood freely, and the patient was much and permanently relieved: but little cough; slept tolerably well; fever abated.

15th. Breathes easily: a slight hissing noise is heard from the wound; skin of a natural heat.

16th and 17th. In a very favorable state: sleep calm and uninterrupted; speech distinct and free. A small quantity of air still passes through the wound, which may be accounted for in a great measure from the swollen state of its edges.

20th. Edges of the wound brought together, as there is no longer any danger of emphysema. A mucous tissue now covers the lips of the wound, and renders the cellular tissue impermeable.

No other symptom occurred of any consequence. In a few days the child was taken home, the wound being reduced to about two thirds its original size. In a month after the operation, she was brought to the hospital: at this period there was still a very small external opening, through which a little air escaped. The wound will doubtless be entirely closed in a few days, and the patient be perfectly cured.

Observations. Several interesting remarks were made upon this case by M. Dupuytren.

1st. In relation to the position in which the patient should be placed during the operation, for the purpose of dividing the external soft parts and the trachea; also in regard to the position in which the patient should remain after the trachea has been opened, in order to favor the exit of the foreign body lodged in it. For the division of the soft parts and the trachea, the head should be thrown backwards: but this position is unfavorable for the exit of air from the trachea when an opening is made into it, and still more so for the expulsion of a foreign body. It was found in the above case that, when the incision was made into the trachea, no air passed out, and the foreign body was not expelled. This was probably owing in a great measure to the small extent of the wound, but the backward position of the head had certainly some share in preventing the immediate success of the operation, as the edges of the wound were thus kept upon the stretch, and prevented from separating. On the contrary, when the head is inclined forwards, the edges of the wound separate more easily, and therefore permit the exit of air or a foreign body. In this case the bean was spontaneously expelled when the head was placed in this position. From the circumstances which here happened, the practical precept therefore arises that the head should be thrown backwards during the operation of tracheotomy; but, to facilitate the free issue of air and the spontaneous expulsion of the foreign body, it is necessary to bend the head forwards, in order to produce a separation of the edges of the wound.

Another difficulty which may be met with in the course of the operation, requires attention. There exists, between the sterno-thyroideus and the sterno-hyoideus muscles and the anterior part of the trachea, a space filled with loose cellular tissue, which forms a kind of cavity. When the instruments arrive at this part, if they do not enter the trachea by the opening which has been made in it, they may pass into this cellular cavity, and lead to mistakes. A little care, however, will prevent this accident. We must again refer to one of the characteristic signs which denotes the presence of a foreign body in the trachea: it is that of the sensation of the shock of the body against the parietes of the canal. This sensation may be detected both by the hand and ear.

We are not aware that this very important symptom has been mentioned by any surgeon before M. Dupuytren. It is not so distinct in every case, and may be less perceptible at different periods after the introduction of the foreign body. The foreign body may adhere to the surrounding parts, and then, not being displaced by the air, it does not strike against the parietes of the canal; or, from being enveloped by an abundant and thick mucous secretion, the shock it produces will be much slighter. In the above case the sound was distinct when the patient entered the hospital, but much less so at the time of the operation.

The manner in which the wound was dressed also deserves attention. Its edges were not immediately brought together, that the patient might not be exposed to emphysema. During the first days the cellular tissue would have been permeable, and in all probability would easily have given passage to air; but after this period, when it was hardened and rendered compact by inflammation, this was no longer possible, and the wound was closed without danger. This precaution ought always to be adopted. It is to be observed also that no lint was placed upon the linen with the aperture in it, which was applied to the wound. When lint has been applied, it has sometimes entered the trachea, and produced very serious mischief.

Foreign Body extracted from the upper Part of the Larynx.

A WOMAN, about fifty years of age, presented herself at the Hotel Dieu, March 20th, 1830, to obtain relief from the effects of an accident which had happened to her eight or ten days before. While eating fish she swallowed a bone, and immediately afterwards she felt pain in the throat at the top of the larynx. This pain continued, and was troublesome both in the act of swallowing and breathing. At first the inconvenience was but trifling, but the pain gradually became more acute. The patient's mouth was opened as widely as possible, and M. Dupuytren carried his finger to the base of the tongue, as far as the epiglottis, the circumference of which he examined. He felt a projection about the size of a large pin's head: the remainder of the foreign body was fixed under the epiglottis. From the account given by the patient, he presumed it to be a fish bone, but he could not himself determine its nature. M. D., having the index finger of one hand placed upon the projecting body, introduced a pair of forceps along his finger, and was enabled to grasp it, and, by a slight extractile force, he removed a fish bone about one inch and a quarter long. The patient suffered very little pain from the extraction. No hemorrhage followed; and as she did not make her appearance again, she probably remained free from any subsequent inconvenience.

It is remarkable that in this case the foreign body was fixed in the parietes of the larynx, and across its upper extremity. It is also curious that the irritation, which is generally so violent when foreign bodies are lodged in the air-passages, was so very slight in this case, that the patient submitted to it for several days without much inconvenience. It is, in fact, an additional example of the great difference in the sensibility of the same organs in different persons. A foreign body thus situated would generally produce very formidable symptoms.*

EDINBURGH ROYAL INFIRMARY.

Aneurism by Anastomosis on the Face, cured by Ligature.

Robert Milligan, æt. nineteen, admitted under the care of Mr. Liston, May 11th.

A livid projecting tumor, presenting all the usual characters of aneurism by anastomosis, occupies the middle of the upper lip, almost the whole of the nose, and the lower part of the forehead, producing little inconvenience to the patient, but causing unseemly disfiguration of his countenance. The frontal, nasal, and labial portions of the tumor, appear to be circumscribed and separate; but, when examined, are found to be intimately connected with each other.

The patient states, that a small blue speck existed at birth on the left side of his nose, and that this nævus increased gradually, and without causing any pain, until it attained its present size and situation: of late it has been almost stationary. Several livid spots are seen on other parts of his body: one on the chin, another on the breast, and on the inside of the left foot: these, however, are extremely minute, and are not enlarging.

May 12th.—Mr. Liston included the labial portion of the tumor in two strong ligatures, which were passed beneath the diseased part by means of curved needles in fixed handles.

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* Ibid.

By the 18th the enclosed mass had become completely sphacelated, and was removed.

On the 19th the frontal portion had its vascular supply interrupted by means of ligatures, applied in the same way as formerly, and the diseased part soon separated.

The remaining and largest part of the tumor, that involving the nose, was also surrounded by ligatures; but, from the largeness of its size, and the peculiar situation which it occupied, the operation was necessarily more tedious than in the preceding instances. By means of fixed needles, insinuated carefully beneath the swelling, with their concave surfaces towards the prominence of the nose, numerous ligatures were passed, and were so disposed that, after tying the extremity of each with the one next it, the tying of the last tightened the whole. The point of the nose was, by their application, drawn slightly upwards; but on the separation of the sloughs it regained its usual situation. The tumor was completely surrounded, and soon showed symptoms of rapid decay.

Mr. Liston remarked, that from the great size of the growth, and the apparent activity of the congeries of vessels which composed it, he believed an attempt to remove it by incision would have been extremely hazardous; but that the employment of the ligature was a safe and effectual practice.

An attack of erysipelas followed the application of the ligatures to each of the swellings, and involved the greater part of the face, commencing in the neighbourhood of the tumor, and rapidly extending around. It soon yielded, however, to the employment of punctures and warm fomentations, and the internal exhibition of antimonial medicines. The predisposing cause of erysipelas seemed to be the particular condition of the atmosphere at that season, for it was prevalent both in the rest of the house and in private practice.

After the separation of the sloughs, the surface assumed a healthy appearance, forming small florid granulations, and discharging a moderate quantity of good pus. When the patient left the hospital, the wound had contracted to a small size, and cicatrization was proceeding rapidly. His appearance was much improved.

GLASGOW ROYAL INFIRMARY.

Case of secondary Hemorrhage, in which the Subclavian Artery was tied above the Clavicle. By M. S. BUCHANAN, M.D. Surgeon of the Glasgow Royal Infirmary.*

WILLIAM STEWART, aged fifty-five, was admitted on the 19th April, under the care of Dr. Weir. He had been attending a vat with boiling solution of alum; and by the fumes from which, he was overpowered. He fell down, and the right hand and forearm dropped into the boiling lie. In this state he was found by his fellow-workmen, and taken home insensible. When brought into the hospital, two days afterwards, the whole of the arm, from the elbow to the points of the fingers, seemed quite dead, the skin like boot-leather. The hand and part of the forearm were insensible; the pulse barely perceptible at the wrist. A consultation determined that amputation should be delayed, and a variety of local and general means were used, such as turpentine dressings, poultices, calomel and opium, &c.

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* Glasgow Medical Journal, (condensed.)

Two days after admission, he had some head affection, indicated by the pain of forehead, and incoherence, as well as by the contracted state of the pupil, and the partial paralysis of his left arm. There was also present another most important symptom, and which I beg attention to, as of great consequence in all cases of extensive injuries, I mean the appearance of the skin and adnata; these were of a pale yellow colour, and remained so till the very last, and I have almost invariably found this symptom one of the most unfavorable which in such cases can occur. Indeed so much impressed have I always been with this peculiar appearance of the countenance after traumatic inflammation, that, when I now observe it, I draw the most unfavorable prognosis, and I am sorry to say it proves too frequently the correct one. Forty leeches were applied to the head, after which the cold lotion was had recourse to: the bowels were freely opened, and the other medicines continued.

On the 22d, the incoherency having ceased, and a line of separation having appeared, an incision was made through the whole length of the forearm, which was a putrid mass; and two days afterwards (24th) amputation was performed above the elbow. There was some hemorrhage, and four arteries, as well as the brachial vein, were obliged to be tied.

The dressings were removed on the third day: the flaps were found wide open, the surface brown and sloughy, the discharge offensive. Œdema had spread up the arm and to the right side of the chest; the constitutional symptoms were not favorable, the skin still retaining the unnatural colour, the tongue dry, the stools green, pulse small and compressible. Stimulants were now given, and the stump dressed with terebinthinate applications. Half a glass of wine every hour was given. Under this treatment the patient rallied considerably.

On the 30th April, Dr. W. resigned, and Dr. B. took charge of his patients.

"When I took charge (says Dr. B.) this forenoon, the appearance of matters did not please me, more particularly the hemorrhage; for I observed that one ligature still remained, whether that around the humeral artery or vein was uncertain, and, from the state of the stump, you may well understand my anxiety: I saw also that the bedclothes and mattress were soaked with blood and discharge from the stump, and, though there was a pretty good pulse remaining, yet this was all I had to depend on. About eight o'clock in the morning of the 1st of May, I was summoned to a consultation, hemorrhage having again taken place. The bed and surrounding dressings were deluged with blood, the stump of the same foul appearance, the countenance pale, the features sunk, and the extremities quite cold: in short, he was moribund. In this state we saw him, and were of opinion that, as he had only a few minutes seemingly to live, it was quite out of the question to propose any operation. Meantime, as I was most anxious that his strength should be supported, and death deferred for some time at least: in other words, that it should not be said that hemorrhage had killed the patient, I ordered warm brandy and wine to be administered in such quantity as his stomach would bear. He had lost, from seven o'clock A.M., at which time the hemorrhage had first been observed, about two pounds of blood; but at last, by firmly compressing the subclavian artery, and the application of a hard pad and bandage to the brachial, high up, further loss had been prevented. I may also state that, on looking at the surface of the stump, before leaving him, I found that the last ligature was gone, probably having come away with the first gush of blood. But you remark that there was a most difficult point of practice: I had Scylla and Charybdis to avoid: I must throw in stimuli, and prevent death from mortification; and, if this is accomplished, and the pulse and strength rally, hemorrhage will again undoubtedly occur. I chose the former as the safest procedure, and determined, come what might, to ward off, as long as possible, the fatal event, by the means above referred to.

"Contrary to the expectation of the consultation, in the morning, this poor man recovered most wonderfully, by the visit hour, one o'clock, when I was again under the necessity of requesting the opinion of my seniors in attendance; and, though this consultation is not recorded in the journal, I think it of considerable moment, and shall therefore in a few words state to you the result. A majority were of opinion that the patient should be allowed some further time to recruit, and then that the subclavian artery should be tied, and this opinion was enforced by the observation that he might lose so much blood during the performance of so hazardous an operation, that death might take place while he was on the table; an occurrence at all times to be looked to in any case, even the most desperate, as reflections of the very worst kind are apt to arise, however unfounded. The minority thought that the above blood-vessel should, without delay, be secured; and this last opinion was rendered the more striking by the probability of further hemorrhage taking place, and thus putting it out of our power altogether to move our hands: besides, it was remarked that, if this operation is performed in a dexterous and bloodless manner, then all is safe, at least on this side; and the only risk is of sinking from mortification, which can, from the man's appearance since the morning, be avoided by the means lately adopted. As in all such cases, the opinion of the majority prevailed, and the same practice was steadily pursued, of supporting the strength, and of careful and constant watching.

At six o'clock in the evening, another consultation was called, in consequence of the pulse getting up, and also oozing to some extent having taken place from the surface of the stump, commanded as formerly by pressure on the subclavian. At this consultation all were agreed on the propriety of having immediate recourse to tying the above blood-vessel; but it was suggested that, before taking the knife, it might be as well to examine with care the surface of the sloughing stump, and see if the main artery could not be laid hold of with the tenaculum, and tied. This idea, however, the moment the stump was looked at, was abandoned, and now all were decided.

Having informed the patient what was going to be done, and had all properly arranged, I turned his head a little to the left side, and requested my colleague, Dr. Perry, to depress the right shoulder: I then took my seat, and having with my left hand kept the skin of the neck upon the stretch, I began my incision with a common scalpel, through the skin and cellular substance, from the acromial edge of the trapezius muscle, onwards to the clavicular portion of the sterno-cleido-mastoideus, and about two lines above the clavicle. The first thing that came in my way was the external jugular vein: this I carefully drew to a side, and then cut through the platysma myoides and superficial cervical fascia, which was here of considerable thickness. The nerves proceeding to the axillary plexus now presented themselves, and were with ease drawn aside, the cellular substance, the connecting medium between them, being separated with the point of the finger. The immense subclavian vein was now seen, completely lying upon and covering the artery; and though in the dead subject this vessel is found under and to the side of the arterial tube, yet in the living it swells out, and causes some trouble to turn aside. This part of the operation, however, as well as the detachment of the artery from its firm connexion to the first rib, by the side of the scalenus anticus, I with great ease accomplished, with the assistance of a silver scalpel; an instrument of great use in all operations where delicacy of touch is required.

"Having now advanced through these steps of the operation, an obstacle of some moment presented itself to the passing of the aneurismal needle from below upwards: this was the clavicular portion of the sterno-mastoid muscle, which I was under the necessity of cutting, and then, with the greatest ease, the common needle was passed close by the side of the scalenus anticus, which proves so infallible a guide to the arterial tube. Having now satisfied myself, as well as all my medical friends who had favored me with their presence and assistance, that the subclavian, and it alone, was isolated above the needle, I proceeded to tie it; and this I without difficulty accomplished, by carrying my two fingers, with the ends of the ligatures at their points, down to the bottom of the wound: a single stitch was put in the centre of the wound, and its lips brought together with adhesive plaster, and simple dressings above. The operation did not occupy more than ten minutes; there was not so much as two tea-spoonsful of blood lost, and the pain was seemingly very trifling.

"Much has been written with respect to the difficulties of this operation, and the trouble of passing the aneurismal needle from below upwards, and many have been the ingenious inventions to facilitate this part of the operation: I must confess, however, that, in my opinion, these difficulties have been sadly magnified, and here, as in most similar cases, books are of very little use; nay, I think they often do harm; for, if any one has dissected the parts frequently, and noted well their relative situation, I would advise him to take his own way of management, heedless of the intricate and often confused directions of systematic bookmakers."

He sunk gradually, and expired on the 4th of May.

Dissection. "The contents of the cranium were healthy, but the plexus choroides and the internal structure of the cerebrum were rather paler than natural. On the right side of the chest there were strong adhesions, seemingly of long standing; and in both cavities of the pleura, more particularly on the left side, a considerable quantity of serum was effused. The substance of the lungs, the pericardium, heart, and large blood-vessels, were healthy. The abdominal and pelvic viscera were all in a healthy state, with the exception of the liver, which was considerably enlarged, and the posterior part of the right lobe of a very soft, friable texture; the gall-bladder also, and biliary ducts, were gorged with inspissated dark-coloured bile. The integuments at the interior and right side of the neck having been dissected back, the sterno-mastoid muscle, with the sterno-hyoid and thyroid cut, and turned aside, the arteria innominata was brought into view, at the giving off of the carotid; the scalenus anticus was now also cut and turned aside, and the subclavian artery well seen, with the ligature firmly tied round it, and a hard clot of blood perceptible on its cardiac side. The clavicle was now removed, and the axillary artery traced under the pectorals, onwards to its termination in the stump, during which transit it seemed quite healthy, till about an inch below the axilla, when it assumed a soft greenish appearance, and no clot could be discovered on the distal side of the ligature. The muscles surrounding the shoulder-joint were soft, green, and matted together, and a large collection of fetid pus extended from the stump, below the axilla, to the under surface of the pectoralis major and minor; the whole substance of which last was in the same gangrenous state as the muscles of the shoulder-joint.

"But it may be asked, what was the cause of the secondary hemorrhage on the seventh day after the amputation? I think this admits of a very satisfactory answer, not only from an inspection of the blood-vessel, but also from the colour of the blood discharged, its quantity, and its suppression by the application of the thumb to the subclavian, as it passes over the first rib. All these circumstances show that the hemorrhage came from the main trunk. The ligature round the blood-vessel still remains; and, on inspecting its cardiac side, the hard clot of blood which nature has formed can be traced into one of the nearest branches."

CRITICAL ANALYSES.

Quæ laudanda forent, et quæ culpanda, vicissim
Illa, prius, cretâ; mox hæc, carbone, *notamus*.—PERSIUS.

A Treatise on the Venereal Diseases of the Eye. By WILLIAM LAWRENCE, F.R.S.; late Professor of Anatomy and Surgery to the Royal College of Surgeons in London; Surgeon to St. Bartholomew's Hospital, and Lecturer on Surgery at that Hospital; Surgeon to Bridewell and Bethlehem Hospitals; consulting Surgeon to the London Fever Hospital, and late Surgeon to the London Ophthalmic Infirmary, &c.—8vo. pp. 337. Wilson, 1830.

WHEN we consider the curious and intricate structure of the eye, and the precious sense of which it is the organ, we cannot wonder that philosophers and physiologists in every age have made its anatomy and function their especial objects of investigation. The various diseases to which the eye is subject were formerly less industriously studied by surgeons, and, as the work now before us will show, neither the pathology nor treatment of some of its most serious maladies have, until very recently, been thoroughly understood. The cause is obvious why this particular department of the science of surgery has been less rapidly improved than many others of minor importance. Until within the last few years, the study of ophthalmic surgery was entirely neglected in this country; and hence arose the custom for persons labouring under diseases of the eye to resort to a distinct class of practitioners, whose study and practice did not embrace diseases generally. Surgeons themselves, indeed, conscious of their own ignorance, consigned their patients to such practitioners when they were affected with diseases of the eye. We have no longer to lament such discreditable indolence. English surgeons of extensive experience and undoubted ability have recently done much to improve ophthalmic surgery, and, by the delivery of public lectures expressly upon the subject, the rising members of the profession have been stimulated to study diseases of the eye, which once were considered to form no part of the education of a surgeon, with as much zeal as other branches of their art.

Venereal diseases of the eye, to which Mr. LAWRENCE now exclusively directs our attention, are in many respects peculiarly important, but until the appearance of the present treatise, they had not been professedly or generally considered. The account which Mr. Lawrence gives us of the nature, symptoms, and treatment of the venereal diseases affecting the eye, has been drawn up entirely from his own experience, and numerous cases are circumstantially detailed to show the foundation upon which his opinions rest.

The numerous dissimilar, and for the greater part highly organized, structures of the eye, are not only liable to common disease, but also exhibit peculiar modifications of morbid affection in scrofulous, gouty, and rheumatic constitutions. The eye also suffers from many diseases of the skin: it is liable to cancer, fungus hæmatodes, and melanosis; and, as we might expect, it is exposed to various affections depending immediately and obviously on those morbid poisons, gonorrhœa and syphilis. By various writers such diseases have been mentioned, but by none have they been treated in a satisfactory manner. Mr. HUNTER and Mr. JOHN PEARSON seem hardly to have known that the eye was subject to any affections of a venereal character. The former writer does not treat of gonorrhœal ophthalmia in his work on the Venereal Disease, and he alludes to what he calls *supposed* venereal inflammation of the eyes, merely for the purpose of expressing his doubts whether such cases exist. Mr. Pearson says, in a letter to Mr. Briggs, " I cannot help entertaining some doubts of the propriety of assigning the gonorrhœa as a cause of ophthalmia; since, during a pretty extensive experience of twenty-five years, I have never seen one single instance of inflammation of the eyes which was evidently derived from a gonorrhœa. Mr. Pearson was also of opinion that there are no specific characters by which diseases of the eye or eyelids, produced by the action of the venereal virus, can be distinguished from those which are excited by other causes.

Mr. Lawrence endeavours to account for the remarkable fact, that two surgeons of such talent and industry, both of whom had been long carefully investigating the venereal disease, were unacquainted with morbid affections of so serious a nature, and such strongly marked characters, by supposing that in their day all diseases of the eye were given up to a separate class of practitioners. We are not altogether contented with this explanation, although we confess we are not prepared to offer another more satisfactory. We cannot bring ourselves to believe that two such zealous and patient inquirers into all the phenomena of disease, men who were so eager to improve their art, could have indolently given up to the care of others cases of the kind referred to, if they ever fell under their observation. On the other hand, we know no reason why venereal affections of the eye should have been less frequent then than in the present day. There appears to us to be some mystery upon this point, which requires still further elucidation. We now proceed with our task of analysis.

Acute gonorrhœal inflammation of the Conjunctiva is the first subject of consideration. Three distinct forms of ophthalmic inflammation occur in conjunction with, or dependence on, gonorrhœa: acute, and mild inflammation of the conjunctiva, and inflammation of the sclerotic coat, sometimes extending to the iris. The first species is a violent inflammation of the mucous membrane of the eyeball and lids, attended with a profuse discharge of fluid, apparently resembling that which issues from the inflamed urethra in gonorrhœa, "and occurring in some kind of connexion with that complaint." It is the most violent and rapidly destructive inflammation to which the eye is subject, and fortunately it is one of the most rare. The organ is often irreparably injured before the patient seeks for surgical relief.

"Purulent ophthalmia, in its various forms, commences in, and is at first confined to, the mucous membrane of the eye. It soon extends to the cornea, which it either disorganizes or changes in structure so considerably, as frequently to destroy or seriously injure sight. The whole texture of the inflamed conjunctiva swells; its blood-vessels are distended to the highest degree, and the membrane becomes of an intense bright red. The texture of the mucous surface is loosened and softened; it becomes pulpy and granular; in short, very much like the secreting surface of some parts of the alimentary canal; and, in this altered state, it pours forth the puriform discharge, which is not produced by suppuration, but is merely the ordinary mucous exhalation, altered in its qualities, and increased in quantity by the inflammation of the membrane. Indeed, purulent ophthalmia does not in general preduce suppuration: the changes which it more commonly causes in the cornea, are sloughing, ulceration, and interstitial deposition ending in opacity." (P. 11.)

Acute gonorrhœal ophthalmia presents all the characters of purulent inflammation of the conjunctiva in their fullest developement: there is the greatest degree of vascular congestion, intense and general external redness, excessive tumefaction of the conjunctiva, great chemosis, corresponding swelling of the palpebræ, and profuse yellow discharge. The first stage of the disease is short: the inflammation is then confined to the conjunctiva, and is attended with soreness and stiffness, a sensation of sand or dirt in the eye, and some uneasiness on using the organ or exposing it to light. The affection soon extends to the cornea, with agonizing pain in the globe, orbit, and head, augmented to intolerable suffering on exposure to light, and with symptoms of inflammatory fever. The danger to the organ is now imminent, and, when the disease has thus advanced from the mucous membrane to the globe itself, its destructive consequences can hardly be entirely averted by any kind of treatment. The great chemosis and swelling of the lids make it often difficult, or even impossible, to get a clear sight of the cornea. As a guide to our prognosis, it is desirable to do this when we first see the case; "but we should not persist in our efforts at the risk of augmenting pain and inflammation." Although the pain is generally most severe when the dense and unyielding texture of the cornea is the seat of inflammation, cases occasionally occur, of which Mr. Lawrence details examples, in which little or no pain is experienced. The immediate effects of the inflammation on the cornea are sloughing, suppuration, ulceration, and interstitial deposition. The more remote consequences are, escape of the humours and collapse of the globe, obliteration of the anterior chamber and flattening of the front of the eye, staphyloma, prolapsus iridis, obliteration of the pupil, corneal opacity, and anterior adhesion of the iris.

> "The eye is sometimes said to burst; a paroxysm of excruciating pain is suddenly terminated by a sensation of something giving way; a little fluid runs down the cheek, and great relief is experienced. It is found that, in consequence of the changes of the cornea just mentioned, the anterior chamber is penetrated." (P. 17.)

After describing the various appearances presented in the cornea before it sloughs, Mr. Lawrence observes that

> "Suppuration of the cornea may be general or partial: it is usually the former. The cornea first becomes white, and then assumes a yellow colour. The effused substance is not a fluid, nor is it collected into a cavity; it is a thick viscid matter deposited in the texture of the cornea. Ulceration takes place, and exposes an opaque yellow substance, which looks like ordinary matter, but it

cannot be wiped off. The ulcerative process extends until this is removed. If the whole cornea should be destroyed, the humors may escape, and the globe will shrink. Or, the humors may remain, and the tumid conjunctiva scleroticæ contract from the circumference towards the centre of the space left vacant by the cornea, until it completely fills that space, when the eye appears like a red fleshy mass, in which even the original situation of the cornea cannot be distinguished. The ulceration of the suppurated cornea may penetrate the anterior chamber at different parts, at each of which the iris may protrude, the front of the organ remaining ultimately flattened.

"When ulceration takes place without previous suppuration, it generally attacks the margin of the cornea, and extends rapidly through the laminæ, so as to form a deep trench, seldom occupying less than one third, often one half or two thirds of the circumference, and sometimes extending round the whole circle. In the latter case, the portion insulated by the ulcerative process sloughs. On the sides of this ulcerated trench, the laminæ of the cornea may be often seen very distinctly. Beer says that they turn up like the leaves of a book which has been much read. If the ulceration should not occupy more than two thirds of the margin, the vascular supply of the cornea will still be carried on, and the mischief may be repaired. As the margin of the cornea is covered by the swollen conjunctiva, these ulcers are at first concealed from view, and we do not know of their existence until the chemosis begins to subside. When the ulcer has gone through the corneal laminæ, the membrane of the aqueous humor may rise as a transparent vesicle in the cavity; or it may be pushed forwards by a protruding portion of the iris. The ulcerative process may penetrate the anterior chamber, when the iris will either fall against the opening, or be pushed into it and block it up. If the ulcer, whether it should have arisen from the separation of a slough, or have occurred in the manner just described, should be spreading, the inflammation remaining unchecked, its surface is whitish, and ragged, or flocculent; or of a dirty yellowish cast, with surrounding haziness. When the inflammation subsides, it becomes transparent. The commencement of the restorative process is marked by the surface of the excavation assuming a light greyish tint, with a jelly-like appearance. A soft semi-opaque substance slowly fills up the breach, when the surface becomes smooth, and the regular figure of the cornea is restored. No secretion of pus is observed, either during the stage of ulceration or that of reparation; the latter process is slow, several days often elapsing without any sensible change in the size or appearance of the ulcer. The same process of contraction takes place here as after the cicatrization of other ulcers, so that the size of the opaque cicatrix is much less than that of the previous corneal ulcer; and as these ulcerations take place on the circumference of the part, one that has been of considerable size leaves a mark that is only observable on close inspection, while, where the ulceration has extended over the edge of the pupil, the cicatrix may leave that aperture quite unobstructed.

"The existence of the ulcer makes no difference in the kind or degree of pain during the active period of the disease: no pain is felt when the inflammation is stopped, although a large ulcer may still exist." (P. 20.)

Various cases are detailed in the work, illustrative of the different changes in the cornea, which are here described. When interstitial deposition takes place, the corneal laminæ are the seat of the mischief; and the opacity thus produced is of the dense kind, called *leucoma* or *albugo*. It is usually accompanied with anterior adhesion of the iris, *(synechia anterior.)* Contraction or obliteration of the pupil may occur in consequence of protrusion of the iris in partial staphyloma, or at the smaller apertures produced by ulceration, or of its adhesion to a leucomatous portion of the cornea. Total staphyloma sometimes results.

Diagnosis. The local symptoms establish no distinction between this affection and violent common purulent inflammation. Its peculiar nature is indicated by the preceding or existing gonorrhœa. In general it attacks only one eye, while purulent ophthalmia affects both. Dr. VETCH,* speaking of the latter, says, "there is not one case in a thousand in which one eye only becomes affected." The symptoms of purulent ophthalmia are not so severe, rapid, or destructive.

Prognosis. The sight of the patient is always in danger. If we see the complaint in the first or second stage, we may expect to arrest its progress by active treatment, but success, even under such favorable circumstances, is not certain. If the cornea possess its natural clearness, the eye may be saved. When it becomes hazy and dull, or assumes a white nebulous appearance, consequences more or less serious will inevitably ensue. The higher the inflammation, the greater the danger. The changes to which the cornea is liable do not always destroy sight; their effect depends on their extent. Sight may be restored after partial sloughing of the cornea, and extensive ulceration may occur without injury to vision. Mr. Lawrence relates cases of this kind. When both eyes are attacked in succession, the disease is less severe in the second, which therefore is usually saved.

"*Causes.* In investigating this part of the subject, we have to inquire what is the nature of the connexion between this inflammation of the eye and gonorrhœa; whether the former can be produced by the application of gonorrhœal matter to the organ? If so, whether an individual can infect himself? whether the application of matter from another source be necessary; or whether the infection may occur in both ways? Whether, on the other hand, gonorrhœal ophthalmia may be an example of that peculiar transference of diseased action which is called metastasis? To some it may appear necessary to examine a previous question; viz. whether there is any connexion at all between the inflammation of the urethra and that of the eye?" (P. 27.)

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* On Diseases of the Eye, p. 195.

To the negative testimony of Mr. Pearson upon the latter point, which we have already mentioned, Mr. Lawrence opposes the positive experience of many competent observers, and the facts he details himself. BEER* and SCARPA† incidentally state, that if gonorrhœal matter be applied to the eye, it excites only a slight degree of inflammation: but we are not furnished with the proof on which this assertion rests. Dr. VETCH took matter from the eyes of persons labouring under acute purulent ophthalmia, and applied it in each case to the urethra of the same individual. No disease was excited: but, when he applied the same matter to the urethra of a different individual, it produced a very virulent gonorrhœa.

"He infers from these experiments, that gonorrhœal matter taken from the urethra and applied to the eye of the same individual would excite no inflammation of the eye. The inference is probable, but not necessary. Because the purulent secretion of the eye does not affect the urethra, we cannot conclude that the gonorrhœal secretion of the urethra will not affect the eye. These morbific influences are not in all instances reciprocal: inflammation of the urethra often causes inflammation of the testicle, but the latter seldom or never produces the first. Dr. Vetch further mentions, that an hospital assistant, named Smith, applied gonorrhœal matter to his own eyes with impunity. When we consider how this matter is diffused over the linen of patients, both male and female, how often the fingers must be smeared with it, and how inattentive to cleanliness the lower classes are, we cannot help concluding that gonorrhœal discharge must be often applied to the eyes of the same individual; yet gonorrhœal ophthalmia is comparatively rare." (P.30.)

But, although these various considerations would lead us to expect that gonorrhœal discharge would not affect the eyes of the same individual, cases are met with in practice from which there is every reason to draw a contrary conclusion. Mr. Lawrence details examples he himself witnessed, and mentions others that have been communicated to him by his friends, in which acute gonorrhœal ophthalmia clearly arose from the application of the infectious matter to the eyes of the same individual. Gonorrhœal ophthalmia may certainly be produced by the application of gonorrhœal matter from another person. For obvious reasons, this cannot be a very frequent occurrence, and Mr. Lawrence has seen no instance of the kind. But he says,

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* LEHRE, v. 1, § 540.

† Treatise on the principal Diseases of the Eye. Translated by Mr. BRIGGS. Second Edition, p. 164.

> "Mr. Wardrop has furnished me with two examples. An old lady went into the dressing-room of her son, who had gonorrhœa, and washed her face with a towel which he had been recently making use of. Purulent ophthalmia quickly supervened, and destroyed the eye in a few days. A washerwoman, who had been employed in cleansing foul linen, was seized in a few hours with puriform ophthalmia, which terminated in the suppuration and collapse of both eyeballs. Delpech[*] mentions the instance of a young and healthy woman, who washed her eyes with goulard water and a sponge, which had been used by a young man affected with gonorrhœa. Violent ophthalmia came on, and quickly terminated in loss of the eye. Mr. Bacot[†] distinctly traced the origin of the disease to infection by means of matter from another individual, in three instances, two of which were washerwomen." (P. 32.)

But, in a great proportion of these gonorrhœal ophthalmia, we cannot trace the disease of the eye to the application of infectious matter, either from the same or another individual. The eyes are said to suffer by metastasis: it is stated that the gonorrhœal discharge is suppressed, and that the inflammation of the eyes occurs in consequence. Such is the opinion of Richter,[‡] Scarpa,[§] and Beer,[||] who consider the restoration of the discharge from the urethra a principal indication in the treatment of the disease.

> "In none of the cases, which have come under my own observation, has the urethral discharge been stopped: although it has generally been lessened, it has continued in some with little diminution.[**] On the other hand, the sudden stoppage of gonorrhœa, when effected by surgical treatment, is not followed by inflammation of the eyes. Since, then, gonorrhœal ophthalmia may occur while the discharge from the urethra continues, and since it does not take place when that discharge is stopped, we cannot admit that the affection of the eye owes its origin to the cessa-

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[*] Chirurgie Clinique, t. i. p. 318.

[†] Treatise on Syphilis, p. 132.

[‡] Anfangs-gründe, v. iii. § 57.

[§] Treatise, &c. p. 162-3.

[||] Lehre, v. 1, § 533.

[**] Delpech gives nearly a similar statement. "Il est bien reconnu que l'écoulement ne cesse pas toujours en pareil cas; que quelquefois, et même assez souvent, il subsiste dans toute sa force.—*Chirurgie Clinique*, v. i. p. 319.

tion of disease in the urethra. I am inclined to refer its occurrence to the state of the constitution, without being able to point out in what that state consists; and to regard it as a pathological phenomenon analogous to those successive attacks of different parts which are observed in gout and rheumatism. The two other forms of ophthalmic inflammation which take place in conjunction with gonorrhœa, show themselves only in rheumatic subjects, and generally in connexion with other arthritic sufferings; and the difference between one of these and the affection now under consideration is only in degree. This view of the subject may throw some light on the circumstance that, though direct infection operates equally on both sexes, the gonorrhœal ophthalmia, said to originate in metastasis, seems to be confined to the male. I have never seen it in the female; and Beer, in the passage last quoted, says that he has observed it only in young, robust, and plethoric men.

"The state of constitution, whether hereditary or acquired, which leads to gout and similar affections, is much less common in women than in men; and will hardly be found at all among those young and previously healthy females who are the principal subjects of gonorrhœa. Again, the morbid influences which are experienced and exerted by the male urethra, are different from those of the vagina." (P. 34.)

Treatment. Mr. Lawrence is of opinion that the boldest and most prompt antiphlogistic treatment is necessary. Blood, he says, must be drawn freely and at short intervals, both generally and locally, until vascular congestion is relieved, and pain removed. He thinks that as much blood should be taken from the arm as will flow from the vein, and that the evacuation should be repeated as soon as the state of the circulation will allow us to get more.

"These (says Mr. Bacot,) are cases which defy all the usual etiquette of regular and ceremonious visits. If we wish to save our patient from the destruction of his vision, we must scarcely depart from his bedside until the inflammatory symptoms are controlled. The lancet must be hardly ever out of our reach; for if ever there was a disease in which blood may be taken away without limitation, it is this." (P. 36.)

Cases given in the work are referred to, to prove the extent to which the abstraction of blood is often necessary. Local bleeding will suffice for the slighter symptoms which may show themselves after the inflammation has been subdued. The more vigorous depletion is required where the inflammation is fully developed, without the cornea being affected; or where the condition of the cornea may be doubtful; where, in fact, we may hope to save the organ from all injurious change.

"If sloughing or suppuration should have already occurred, it will be of no use to pursue this very active treatment, although more moderate depletion may still be necessary. General sloughing, or general suppuration of the cornea, is usually attended by diminution of the inflammation and cessation of pain, or at least comparative ease: the loss of blood therefore is no longer required for the relief of suffering; and it would be without an object, as vision is irreparably destroyed.

"But inflammation may continue with undiminished violence after the occurrence of partial sloughing; and active depletion may still be necessary, both to limit the extent of the mischief and to favor the processes of separation and restoration. In Cases 8 and 9, very free depletion, both general and local, was employed after the cornea had suffered partially in this way; and the treatment was completely successful in preserving sight. In Case 3, where one cornea had sloughed entirely, and the other eye was actively inflamed, the venesection and local bleeding employed on account of the latter had no prejudicial effect on the former." (P. 38.)

Mr. Lawrence does not place much reliance upon blisters. The ordinary local applications may lessen suffering, but will not check this violent disorder. Some patients find the warm most beneficial, others cold, and the feelings of the patient must be our guide. The eyelids and cheek must be frequently cleaned. When the inflammatory symptoms have been quickly and completely subdued, the effects of the disturbance will pass off in a little time, without the use of astringents and tonics. It will be sufficient to lessen the restrictions in diet, and to use mild aperients. Sloughing of the cornea sometimes, but very rarely, is attended with evidences of general depression, requiring tonics and cordials.

"Such symptoms may occur in conjunction with an unfavorable state of the corneal ulceration, in which, although the swelling and redness of the conjunctiva are diminished, the ulcer spreads with a whitish or dull yellow colour, and an irregular surface and edge." (P. 41.)

Here bark and more generous diet are necessary, and astringent lotions may be proper. They must be used with caution, however, we are told, for fear they should cause a relapse of the inflammation, which must have been subdued before they can be safely employed. The best forms of astringent applications are, the solution of alum, from two to ten grains to the ounce of water; solution of nitrate of silver; or undiluted Liq. Plumb. Sub. The use of a powerful astringent has been recommended in the very commencement of the affection, as a means of cutting it short, and preventing the developement of the inflammation.

Very strong testimony in favor of the astringent plan of treatment in ordinary purulent ophthalmia is given by Mr. MELIN,* Drs. RIDGWAY, O'HALLORAN,† &c. In several very acute cases of this kind, we have been astonished at the rapidly beneficial effects of the nitrate of silver ointment, which was directed by Mr. GUTHRIE at the Royal Westminster Infirmary for Diseases of the Eye; and we are persuaded that Mr. Lawrence's apprehension of increasing inflammation by such treatment is quite unfounded. But let it be remembered that much depends upon the ointment being carefully prepared, and applied according to Mr. Guthrie's directions.‡ In the instances which we have seen, blood was always abstracted, but in moderate quantities.§

Mr. Lawrence has employed the nitrate of silver (in solution) in two cases of conjunctival inflammation, with the best result. One of these was mild gonorrhœal inflammation; the other was catarrhal inflammation of the membrane affecting both eyes of a gentleman, who had been convalescent from gonorrhœa for a few weeks. In the latter instance it must be observed that *three pounds* of blood were taken from the arm, and free purges given before the local application was employed.

As destructive or injurious consequences have so frequently resulted under the usual management of this disease by very free bleeding, &c. Mr. L. would " certainly employ the local astringent, if he met with a case favorable for the trial: that is, where the affection had not extended beyond the conjunctiva. Bloodletting might be resorted to at the same time. In most cases, however, our aid is not sought until the cornea has become affected, and it is therefore too late for the astringent plan." From what we have seen of this mode of treatment, we are convinced it is not necessary thus to restrict its employment. In the various reports we have published of cases at the Royal Westminster Ophthalmic Hospital, several examples will be found, in which, although the cornea was highly inflamed and ulcerated, the Arg. Nitr. ointment quickly relieved the symptoms, but moderate quantities of blood being abstracted.‖ The case of Catherine Bulkley** is an excellent illustration of the advantages of this practice, which Mr.

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* London Med. and Phys. Journal, vol. lii. p. 184.

† Practical Remarks on Acute and Chronic Ophthalmia, &c. 1824. Part i. ch. i.

‡ London Med. and Phys. Journal, September 1828, p. 193.

§ Ibid. December 1829, p. 521.

‖ A case in point is given in our Hospital Reports of this Number, p. 315.

** London Med. and Phys. Journal, December 1829, p. 521.

Guthrie so frequently employs. Here there was great chemosis of the ball, encroaching upon the edges of the cornea, together with superficial ulceration and some degree of loss of transparency of that part; considerable purulent discharge; great pain in the head and eye; discharge scalding hot. The nitrate of silver ointment was immediately applied by Mr. Guthrie himself. Eight ounces of blood only were taken by cupping the first day; no medicine was given: the symptoms speedily subsided. We saw this case from the commencement to its termination, and we thought, when the patient first presented herself, that it was almost impossible her eyes could be saved. This woman had had gonorrhœa for more than a month.

We are surprised that Mr. Lawrence has not adverted to the extensive experience of Mr. Guthrie upon this subject, as he has contributed very much to establish the efficacy of the astringent plan of treatment in acute and chronic ophthalmia.

The influence of mercury in gonorrhœal ophthalmia is doubtful. Mr. Lawrence has seen both the ordinary purulent and gonorrhœal ophthalmia proceeding, apparently unchecked, under a full mercurial action. Beer* asserts that mercury is of no service; and Delpech speaks to the same effect.† On the supposition that gonorrhœal inflammation of the conjunctiva depends immediately on the suppression of the discharge from the urethra, the restoration of that discharge has been made a main point in the treatment by some surgeons of experience and judgment, as Richter,‡ Scarpa,§ and Beer.||

> "In spite of the confidence which one is inclined to repose in the practical knowledge and judgment of those whose advice has just been quoted, I cannot help thinking that the measures in question have been recommended rather on theoretical grounds than from experience. At least, these writers do not mention any results of their own practice; nor have I met with any cases in which the employment of such means is mentioned. In none of the instances which have come under my own observation has the gonorrhœal discharge been suppressed, so that the reason for this kind of practice has not existed. Again, when the violence and rapidity of the disease are considered, in contrast with the slow-

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* Lehre, edit. 2, v. 1, § 539.

† Chirurgie Clin. de Montpellier, v. 1, p. 321.

‡ Anfangs-gründe, v. 3, § 58-61.

§ Treatise, &c. 2d Edition, p. 166.

|| Lehre, v. 1, § 537-539.

ness and uncertain operation of this treatment, we cannot doubt that irreparable mischief would be done to the organ during the time lost in such attempts." (P. 49.)

Mild gonorrhœal inflammation of the conjunctiva "may be safely and advantageously treated on the astringent plan, particularly by the solution of lunar caustic, the use of which may be preceded by antiphlogistic means in patients of full habit, or where we fear that the organ is in danger from probable extension of inflammation to the cornea.

Gonorrhœal inflammation of the external Tunics and Iris. The vascular trunks lying between the conjunctiva and sclerotica are distended, and the anterior portion of the latter membrane becomes of a pink or purplish red. As the conjunctiva participates but slightly in the affection, these changes are distinctly seen through it. There is increased lachrymal secretion, severe pain in the eye, with sense of tension, intolerance of light, with profuse discharge of tears on the slightest exposure.

"The inflammation soon extends to the iris, which loses its brilliancy, assuming a dull and deeper hue. The pupil contracts, and lymph is effused from its margin. The external redness is increased, the vessels of the conjunctiva being more distended. The cornea at the same time becomes hazy, and vision is more or less impaired. Nebulous opacity and speck of the cornea are sometimes produced. See Cases 15 and 24. As the inflammation subsides, the iris recovers its natural colour, and vision is restored.

"If the inflammation be considerable, it may cause adhesions of the pupil, with contraction of the aperture; and the adhesions thus formed are sometimes white, as in arthritic iritis. Even permanent dimness of sight may be produced. Sometimes repeated attacks of the disease occur, each of which causes fresh adhesion, so that at last the pupils are fixed in their whole circumference, and considerably contracted. This is exemplified in Case 16, which also shows that the complaint is not always very serious, as the patient had escaped without any material imperfection of sight, although he had employed nothing but a wash in the several inflammations he had experienced.

"This affection must be treated by the abstraction of blood, general or local, and by other corresponding measures. If the inflammation be considerable, if it should occupy both eyes, and the patient should be young, robust, and plethoric, free general bleeding will be required. Cupping and leeches will suffice in the milder instances. Warm local applications are generally the most agreeable to the patient's feelings: the poppy fomentation answers the purpose very well. Exclusion of light is absolutely necessary so long as the intolerance continues. When the inflammation is checked by these measures, blisters may be advantageously applied, and the cure may be completed by the administration of

Plummer's pill once or twice a day, with mild aperients and a regulated diet. Colchicum is often used with advantage on account of the rheumatic symptoms which accompany this affection; and the eye may be expected to participate in the benefit, although the remedy cannot be depended on as a means of counteracting dangerous inflammation of the organ. The same observation is applicable to residence at the seaside and warm bathing, which are more advantageous to the lingering arthritic ailments under which patients frequently suffer so long in these cases, than to the ophthalmic affection." (P. 53.)

Patients often experience at different times, "in consequence of, or in connexion with gonorrhœa," the above kind of inflammation and mild inflammation of the conjunctiva. Rheumatic inflammation of the joints accompanies both these forms of ophthalmic disease. Mr. Lawrence relates cases of this kind, and refers to others which have been published by Mr. Brodie* and Dr. Vetch.† Inflammation sometimes exists at the same time in the urethra, the eyes, and joints: in other instances these parts are affected successively. Several examples of this form of disease are given.

"The affection of the eye last described is exactly the same as rheumatic inflammation of the sclerotica and iris occurring independently of gonorrhœa. Both this and the mild purulent inflammation of the conjunctiva are to be regarded as rheumatic affections of the organ excited by gonorrhœa: that is, they take place in individuals, in whom this constitutional disposition is shown by inflammation affecting either the synovial membranes or the fibrous structures of several joints. Although the organs seem at first view very dissimilar, there is an analogy of structure between the parts which suffer in the two instances; that is, between the synovial membranes and the conjunctiva, and between the ligaments and fibrous sheaths and the sclerotica. Hence we need not be surprised at finding that the eyes suffer under the influence of that unsound state of constitution which leads to these affections of the joints. The structure originally affected, the lining of the urethra, is also a mucous membrane, which sometimes becomes inflamed, and pours out a puriform discharge, in gouty and rheumatic subjects, from internal causes. That the essential cause of this combination of morbid phenomena is peculiarity of constitution, may be inferred from the repetition of attacks, and the length of time for which some individuals are harassed by successive appearances of disease in various parts." (P. 58.)

In the nineteenth case detailed by Mr. Lawrence, discharge from the urethra *without* infection occurred four times; then inflammation of the foot; three years after, severe inflammation of the chambers of the aqueous humor; then gonorrhœa and mild purulent inflammation of the conjunctiva, followed by rheumatic inflammation of various joints; and afterwards severe rheumatic inflammation of the sclerotica and iris. One patient seen by Mr. Brodie had undergone four attacks, all of which began with gonorrhœa: it was followed first by purulent ophthalmia, and then by inflammation of the synovial membranes of several joints.* This train of diseases must be referred principally to peculiarity of constitution; gonorrhœal infection is not essential to their production: it is only to be regarded as one of the exciting causes, and perhaps the most frequent.

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* On Diseases of the Joints, pp. 55 and 60.

† Practical Disease, &c. p. 243.

Mr. Lawrence details twenty-four cases of gonorrhœal ophthalmia; fourteen of them were of an acute form. "Loss of vision took place in *nine* from sloughing, suppuration, or opacity of the cornea. In two of these an eye was lost, and the other recovered. Sight was restored in the other five, with partial opacity of the cornea and anterior adhesion of the iris in three of the number." In some of these instances the eye had sustained irreparable injury before Mr. L. was consulted. But still quite sufficient evidence remains to show that even the prompt and active application of the antiphlogistic plan of treatment is followed by very discouraging results. We have seen several cases, and we know of others, in which from a very early period of the disease, this practice was adopted to its fullest extent, compatible with the safety of the patient, and still destruction of the eye ensued.

Gonorrhœal ophthalmia differs only from common acute purulent ophthalmia in the greater degree of its severity, and the rapidity of its destructive progress. In the latter disease, abundant experience has proved the superior efficacy of moderate bleeding, conjoined with the astringent plan. At the Westminster Infirmary for Diseases of the Eye, the practice of copious and repeated bleeding has been carried to its utmost extent, and abandoned from the conviction of its utter incapability of arresting the disease. Mr. Guthrie now pursues a different practice. From ten to twenty ounces of blood are abstracted, and the strong nitrate of silver ointment is immediately applied, even during the acute stage of the disease, with much greater success.† We have seen several very acute cases at this institution treated in this manner, and the severity of the symptoms have been speedily checked. We think we are justified in concluding that the practice which is most advantageous in acute purulent ophthalmia, will be so in the gonorrhœal form of the disease. Mr. Lawrence, we lament to say, is not yet discouraged even by the frequent failure of bold antiphlogistic treatment. He infers not that this practice is incapable of arresting the inflammation, but that it has not been employed to a sufficient extent. In support of this opinion he refers particularly to his fifth case. In this instance the patient was seen "in the earliest period of the affection;" "the most active treatment was adopted, in spite of which, however, the eye was lost." Now, as the *most* active treatment was here promptly applied, we are surprised that Mr. Lawrence should regret it had not been carried to a still greater extent. We should have expected that the unfortunate result of this case alone would have induced him afterwards to try the other practice, so confidently recommended by many surgeons of extensive experience. We most earnestly recommend him to give the astringent plan of treatment a fair trial. The evidence in its favor is too strong to be rejected; and, even if extended experience should show that it is only equally successful with the practice of very large and repeated bleedings, it ought to be preferred. The constitution of the most robust patients not unfrequently suffers permanent injury from such severe practice; and their recovery is in most cases very tedious.*

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* On Diseases of the Joints, p. 63.

† Mr. Bacot (Treatise on Syphilis, p. 138,) relates an interesting case in which gonorrhœal ophthalmia was very speedily cured by the application to the eye of a solution of lunar caustic, ten grains to an ounce.—Ed.

In the next Number we shall notice the second part of Mr. Lawrence's work on "Syphilitic Diseases of the Eye."

A Treatise on Deformities; exhibiting a concise View of the Nature and Treatment of the principal Distortions and Contractions of the Limbs, Joints, and Spine. Illustrated with Plates and Woodcuts. By LIONEL J. BEALE, Surgeon. —8vo. pp. 248. Wilson, London, 1830.

THE subject to which Mr. BEALE directs our attention, although of the utmost importance both as regards the health and happiness of numerous individuals, has been comparatively neglected by regular surgeons. The treatment of deformities, until recently, has usually been confined to the empiric or mere mechanic. From neither could much benefit be expected, but it is probable that the latter has inflicted the most positive injury. In the treatment of deformities, the surgeon may undoubtedly obtain much assistance from an expert mechanic: he may construct his instruments ingeniously, but he cannot adapt them to each particular case. The scientific surgeon alone can determine the cause of the deformity, or the indications to be fulfilled in attempting to remedy it. The frequency of various kinds of distortion, and the obvious necessity for improvement in their mode of management, have at length attracted the attention of the profession, and if the public are any longer imposed upon by unprincipled adventurers, they have themselves to blame. Many valuable monographs, and scattered essays in different medical periodicals, have been published upon the subject of deformities; but still we have no work which professes to treat generally of such maladies. The task which Mr. Beale has undertaken is not therefore unnecessary: his object being to combine the experience of former writers, with the facts he has himself observed, relating to the nature and treatment of the principal deformities to which the human frame is liable.

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* We have often heard the astringent, or, more correctly speaking, the stimulant plan of treatment objected to in acute ophthalmia, upon hypothetical grounds, by those who confessedly had never put its efficacy to the test in practice. The eye, it is said, is highly inflamed, and therefore stimulating applications must be injurious. It would be quite sufficient to reply, that experience has proved the contrary: but we may go a step further, and defend the practice upon principle; for the success of the stimulating treatment, together with *moderate* bleeding, in acute inflammation of the eye, very clearly illustrates the solidity of those pathological doctrines of inflammation which have been so ably and ingeniously maintained by Drs. Wilson Philip, Hastings, and others.—ED.

It is stated in the preface that much unfounded prejudice prevails among English surgeons, with regard to the employment of mechanical apparatus in the treatment of distortions of the limbs. We believe that it is only the *injudicious* employment of such means that has been objected to, and that Mr. Beale will find few, if any, of his surgical brethren who are not inclined to admit with him that many distortions cannot be removed without the aid of mechanical instruments. As a proof of the efficiency of such instruments, Mr. Bransby Cooper's account of the osteology of a Chinese woman's foot is referred to, and it is said that "if such deviations may be effected contrary to nature, we may confidently apply mechanism to place parts in those situations which nature intended they should occupy." We do not conceive that this is a happy illustration of the probable advantages of mechanical means in cases of deformity. It by no means necessarily follows, that because the natural growth of a limb may be checked and distorted by artificial manœuvres, a deformed member, of which most likely all the parts are more or less enfeebled or diseased, should by the same means be restored to its natural position. The point is trifling, perhaps, and we only notice it because we think that Mr. Beale has selected a very weak argument in recommendation of the practice he is very properly anxious td efend.

In an introductory chapter a neat anatomical sketch is given of the various parts which are implicated in distortions. In his general observations, the author justly observes that there is no notion more pernicious than the supposition that children will outgrow deformities. A deformity may stop at a certain point, and, as the body grows, become less apparent; but the instances of a natural cure are so few, that all such hopes ought to be abandoned, and proper means of cure resorted to at as early a period as possible.

"Children with distorted limbs are sent from their homes to the sea, in the hope that, by increasing the vigour of their constitution, the deformity may be removed; but disappointment too generally follows, and the malady, augmented during the time so devoted, must sooner or later be met by the only certain methods of cure,—mechanical assistance, and means which give tone to the faulty muscles." (P. 39.)

With regard to the period of life to which a possibility of curing deformity extends, there will of course be great difference according to the cases. The earlier the stage in which curative means are applied, the better; but it may be established as a general rule, that, during the period of growth, most distortions, that are at all curable, may be entirely removed.

"So long is it before any marked effect is produced on the form of the bones, in many varieties of club-feet, that these distortions may be entirely effaced, at almost any period before growth ceases. Even after the period of youth, they may be much benefited, and sometimes altogether removed. The same observations apply to many varieties of distorted spine. To be able to give a fair prognostic, we must be very careful in distinguishing the true nature of the cause, and the degree to which it has operated on the limbs or spine. In inflammation of the fibro-cartilages, for example, if the disease has made such progress as to cause atrophy, or absorption of the cartilages, or if they are covered with ossifications, we can never hope to restore the form, which, in the earlier stages of this variety, may with certainty be predicted. It is of much importance to ascertain whether the deformity is still making progress, because, if we find that for the space of a year or two there has been no advance, but a complete and gradual cessation of the attendant symptoms, it will be a strong presumption that the time for a perfect cure has gone by. This opinion will be confirmed, if we find that extension produces no effect." (P. 40.)

In applying extension to the spine, the utmost circumspection is necessary. The accidents which may be produced demand that such means should never be employed but with the greatest prudence, and after a most careful investigation has clearly distinguished the species of the malady. In the chapter on Rickets, Mr. Beale remarks that "the upper extremities are always less deformed than the lower; the bones are bent from muscular action *alone,* and acquire a direction forwards from the preponderating influence of the flexors." We doubt the correctness of this statement. The bones are not bent by muscular power alone: the subjects of rickets, on the contrary, are precisely those who are most deficient in muscular vigor. The primary cause appears to be non-assimilation of food, occasioning imperfect nutrition; diminished healthy circulation; a consequent weakness in the muscles; and defective solidity of bone. The lower limbs will be more especially liable to bend, as they have to bear the weight of the trunk. The opinion that rickets is attributable to defective solidity of bone, is corroborated by a comparison between the specific gravity of healthy bone, and that of the bones of those subject to this malady; the former being much heavier than the latter. Mr. Beale himself, indeed, states, in the first sentence of the chapter, that in rickets the bones lose their tenacity and hardness, and bend under the weight of the body, and are also distorted by the action of muscles.

"***Diagnosis.*** There is no disease which can be confounded with rickets, but it is important to distinguish curvatures of the spine, produced by this malady, from those originating in other causes. The application of mechanism, occasionally useful in some cases of spinal distortion, would obviously be improper where the bones are preternaturally soft; the pressure of instruments on the pelvis would tend further to increase any deformity, which might have already taken place in that part.

"We should carefully examine the effects produced by the malady in other bones, besides those of the vertebral column. Not only do the bones of the extremities become soft and flexible, but those of the thorax and pelvis are more or less diseased. The pelvis in this malady seldom fails to partake the fate of the spine; but in deformed spine, from other causes, the bones of the pelvis are but rarely affected. This is a most important distinction, and by properly attending to it, in obstetric practice, the alarms of many families may be entirely removed. As a general rule, it may be said, that deformities occurring after the first ten years of life, seldom implicate the form of the pelvis." (P. 59.)

The general treatment of rickets recommended by Mr. Beale is such as is usually adopted. Upon one point we hesitate to agree with him. He says that, "during the whole time that the bones remain flexible, the patient should lie in the recumbent position, and daily extension should be applied, to restore or to maintain the proper direction of their course." By keeping a patient constantly in a recumbent position, we should fear to retard rather than accelerate the acquisition of muscular strength, and consequent solidity of bone. Alternate exertion and rest are much more likely to attain the desired result. Exertion must, of course, be in proportion to the strength of the child and the degree of the disease, but absolute inaction can rarely be required, and will be commonly prejudicial.

Deformities of the upper and lower extremities, pigeon or chicken breast, and wry neck, are the subjects discussed in the ensuing chapters. Upon each of these points Mr. Beale gives an abstract of the opinions of the best authorities.

General observations on Spinal Distortions. Upon this subject the most discordant opinions have been maintained. By some the original cause has been ascribed, exclusively, to the muscles; by others to the ligaments and cartilages; and, from the time of Pott until very lately, caries of the bones was universally considered as the cause of all the varieties of spinal deformity. Before the time of POTT these diseases were only considered with respect to their external characters, and the distortions were mechanically treated, without any regard to their causes. Even in the present day, mischief is often done by those who, judging alone from external symptoms, profess to cure all deformities by external force. Within the course of the last few years, a rapid improvement has taken place in our knowledge of the pathology and treatment of spinal distortions. Mr. Beale states that we are indebted to Mr. SHAW for the best work on lateral curvature, and for calling our attention to muscular inactivity, and consequent debility, from which this variety of distortion most commonly arises. We fully admit the practical excellence of Mr. Shaw's work; but the merit of first calling the attention of the profession to "muscular inactivity, and consequent debility," in such cases, is due to Mr. WARD, who published a valuable essay* upon this subject, about a year before the appearance of Mr. Shaw's treatise. DELPECH, in France, has carried pathological investigations further than any other writer. His account of curvatures from chronic inflammation, or what he terms a peculiar affection of the fibrocartilages, and from a tuberculated condition of the vertebræ, being derived from extensive opportunities of post-mortem inquiries, are particularly valuable.

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* Practical Observations on Distortions of the Spine, Chest, and Limbs; together with Remarks on Paralytic and other Diseases connected with impaired or defective Motion. By WILLIAM TILLEARD WARD, F.L.S. &c. London, 1822.—Mr. SHAW published his work in 1823.

"By fair analogy, we may expect to find in the joints of the spine the same diseases which attack analogous structures in the other articulations of the body, and any man of unbiassed judgment will readily see that the primary cause of distortions is sometimes seated in the muscles, sometimes in the ligaments or cartilages, and sometimes in the bones. As the mode of treatment is essentially different in these varieties, it is imperative on us to discover the original cause of the mischief: for as it is wiser, and more effectual, to attack the causes rather than the effects of disease, so the trouble of the investigation will amply repay us. At one time it was the fashion to place all persons with deformed spines in the recumbent position, so to remain for one or more years. Now, it is obvious that, if the cause of the deformity lies in a deficiency of muscular power, total inactivity will not be very likely to remedy the disease, and it was therefore no uncommon occurrence to see persons after going through this ordeal, becoming, at the end of the course of treatment, worse than at the beginning; for such a state of disease, the simple remedy is muscular exercise, variously modified. Now the exercises of gymnastics, in cases of inflammation of the fibro-cartilages, or caries of the bones, would clearly increase the cause of the distortion: in these instances, repose in the recumbent position, is the essential feature of the management.

"The earliest source of deformities of the spine is rickets; cases from this cause mostly occur in the first ten years of life. The next general cause is muscular debility, and produces its effect on girls of rapid growth, from the age of ten or twelve to fifteen or sixteen. The affection of the fibro-cartilages attacks children of a lymphatic or scrofulous tendency, during the period of growth; while curvatures from disease of bone occur at all ages, but seldom later than forty.

"Among the occasional causes of deformity, may be mentioned contractions within the chest. The cavity of the chest, like the cavity of the cranium, is entirely filled with its viscera, the parieties are moulded upon their contents, and the proper developement of the thorax depends on the proper developement of the lungs and heart. If any portion of the lungs be deficient, there will be a corresponding defect in the containing cavity. Cases of deformity occur from contractions within the chest, after abscess and destruction of portions of lung. Seurat, the man exposed to the gaze of the curious in this town, under the name of 'the living skeleton,' was an example of this kind. In the work of Delpech will be found a detailed account of this man's case, and many others of a similar kind; Laennec has also described numerous instances of the same nature.

"The contraction of the cavities of abscesses in the lungs draws inward the corresponding ribs, and bends the spine laterally or anteriorly. The tissue generated by suppurative inflammation, which forms the cyst of the abscess, contracts and produces these results. If an abscess forms in the upper part of the lung, the cyst will be attached by adhesive inflammation to the three or four upper ribs, and also to the spine: after evacuation of the pus, the fibrous matter forming the cyst will contract, and bring together the ribs and the vertebræ. This fibrous matter sometimes ossifies, and the deformity becomes fixed and apparent. Recoveries from phthisis and empyema, in this climate at least, are so rare, that we are not likely to have our attention frequently directed to these results.

"Some cases of deformity arise from congenital inequality of the two sides of the body. The muscles, and in some instances the bones, are less developed on one side of the mesial line, than on the other. The most important of these cases is where one lower extremity is shorter than the other: an account of this will be found in its proper place. The undue developement of the bones or muscles of one side of the vertebral column must be so rare a cause of distortion, that we may safely pass it by without further comment.

"Rheumatism is a very common cause of curvature of the spine. In these cases the vertebral column is implicated, and a great arc is formed, the concavity of which is always forwards. The fibrous apparatus on the anterior part of the bodies of the vertebræ is extremely liable to rheumatism; we may also expect, from analogy, that the fibro-cartilages are sometimes the seat of this disease, and the contraction of these parts will necessarily incurvate the spine forwards.

"In subjects predisposed to rheumatism, the slightest twist of the spine will often produce a return of the disease: the writer of of this experienced an attack of lumbago and sciatica, which lasted for months, by suddenly jumping out of bed, and giving the back a jar. In such constitutions a slight deformity of the spine, which has been considered as permanent, will sometimes make a sudden and enormous progress.

"In distortions from rheumatism, the curvature of the spine forwards is, in some measure, the effect of indulgence in the most easy position. Few cases of curvature can be referred exclusively to any one cause, there is generally one or more secondary causes, which operate in conjunction with the primary. So, in rheumatic curvatures, there is generally defective action in the extensor muscles of the back: this operates by allowing an anterior flexion of the vertebral column, on the same principle that it does in the bent back of infancy and of old age." (P. 126.)

The interesting series of papers by Dr. and Mr. D. Griffin which we have recently published, the work of Mr. Teale on Neuralgic Diseases, and other treatises which have lately appeared, show that Mr. Beale is correct in attributing many of the obscure, anomalous, and what are termed nervous cases, which so perplex us in practice, to some morbid condition of the spinal marrow, or the nerves which arise from it. "In such cases it will be wise to refer to that portion of the back where the nerves of the disordered part terminate."

There are three varieties of spinal distortion: lateral curvature, curvature forwards or angular projection, which are degrees of the same inflexion, and curvature backwards. Some confusion has arisen from the use of the same terms, in different senses. The term excurvation, or curvature outwards, has been applied to the common variety of hump back, where the upper part of the spine is bent forwards. Mr. Beale makes use of no other terms than curvature forwards and curvature backwards.

"By the first will be understood all cases where the upper part of the spine is bent anteriorly, by which the sternum is brought nearer to the pelvis than natural: by the latter term will be meant the reverse of this, which, indeed, is so rare a case, that it will require but little consideration.

"In lateral curvatures, the whole spine is more or less distorted: in whatever part the vertebræ may first incline to either side, there will be, above or below, one or more curves in opposite directions, to maintain the equilibrium: and in some instances the head will be so correctly placed over the centre of gravity that the body will appear at first sight to be only shortened, and not distorted. Sometimes the whole of the dorsal vertebræ are included in one great sweep. This variety is generally dependent on muscular debility, and, like all distortions from this cause, is temporary in its incipient stage, disappearing in the recumbent position, and by gentle extension: nor do such cases become truly permanent, until, from very long continuance, the bones or fibro-cartilages are rendered cuneiform by pressure. Curvature forwards is most commonly dependent on disease of the cartilages, or the bones: that degree of it, which has been denominated angular projection, is almost invariably permanent, and depends on progressive, or ulcerative absorption, of the fibro-cartilages or of the bones.

"The spine cannot be deformed in the dorsal region, without implicating the situation, and relations, of the sternum and the ribs: the rotation or contortion which is generally more or less combined with curvature, will also secondarily alter the form of the ribs and sternum. The mode of the posterior articulation of the ribs hardly permits them to escape in any degree of dorsal curvature, unless the ligaments become greatly relaxed: to a certain extent this may occur, but, at a later period of inflexion of the dorsal vertebræ, the ribs corresponding to the concavity of the curve will be necessarily brought nearer together, while those of the convex side will be separated, and on the degree of resistance offered by the ligaments and cartilages will depend the amount of distortion of the chest. The varieties of this are innumerable, as may be seen in any anatomical museum." (P. 132.)

More distortions, perhaps, occur about the two inferior dorsal, and upper lumbar vertebræ, than in any other portion of the spine. The connexion of the vertebræ of the back is firmer than in any other part of the chain: just at the base of the firmer column there will be unusual freedom of motion, and this is the cause of the frequency of distortion in this part. More or less derangement occurs in the functions of the thoracic and abdominal viscera, in cases of spinal deformity. These viscera sometimes, however, accommodate themselves to the pressure inflicted upon them, or to the alteration which occurs in their position, and carry on their respective offices better than might be expected from the degree of distortion which exists. In some cases of spinal deviation, the growth of the body ceases; puberty is retarded; in males, the voice does not change, nor the beard grow.

"When we contemplate the deviations of the viscera of the chest and the abdomen, of the great blood-vessels, of the great centre of the absorbent system, of the various nervous ganglia concerned in the supply of nervous power to the organs of nutrition; when we consider the deranged condition of the spinal cord, the principal seat of sensation and motion, and the centre of communication of all parts with the brain, the perverted course of the nerves connected with it, as well as the great sympathetic; when we call to mind the impaired condition of the respiratory organs, of the intercostal and abdominal muscles; when we remember the important offices of all these parts in the animal economy, we cease to be surprised at the long list of maladies which are attendant on, or consequent to, spinal deformity." (P. 137.)

We may judge of those cases of distorted spine which are susceptible of cure, by gently raising the body by the chin and nape of the neck, or by extension in the horizontal position, which is the best mode in Mr. Beale's opinion. If the curves are in part effaced, it is evident that the vertebræ are not immoveable, and we may therefore give a favorable prognosis. It does not follow that very bad cases are the most difficult of cure; for where there is great but increasing deformity, we have more reason to expect success in our treatment, than when a smaller degree has been long in a fixed state.

"In distortion from caries, the most happy result will he anchylosis of the remaining portions of the bodies of the diseased vertebræ. The necessity of a correct diagnosis in these cases is obvious. The same remark applies to spinal deviations in consequence of rickets; when the disease has terminated, and the bones have recovered their density, any change in form is almost, if not altogether, hopeless." (P. 138.)

The *lateral curvature* is the most common form of spinal distortion, and perhaps there are few delicate females whose figure is not more or less affected by it. It is often so slight as not to attract the notice of the individual. Tight stays, a constant sitting posture, too little exercise, a habit of leaning, or indulgence in any other particular attitudes, may cause a deviation of the spine in the lumbar region.

" In very many instances no further effect is produced, and a very slight curvature in the loins continues for life. It is only when a secondary distortion occurs in the dorsal region, and the figure palpably suffers, that the attention of the patient or her friends is directed to the subject. Perhaps many of the anomalous complaints, to which hysterical and nervous women are so liable, may originate in these slight distortions of the lumbar vertebræ. The affections of the spinal marrow are every day attracting more attention, and I have no doubt that future investigations of this part of the animal economy will lead to the elucidation of these, hitherto, intractable disorders.

"The first symptom which attracts attention, when a lateral curvature is forming, is the greater elevation of one shoulder: this is less perceptible in the morning than in the evening, when the patient is fatigued. By degrees the shoulder rises more, is more full, and a slight lateral bend becomes perceptible in the spine. On examination, the spinous processes of the dorsal vertebræ will be found sweeping too much to the right, those of the lumbar to the left; if a plumb-line be held from the occiput, and the points of the spinous processes be dotted with ink, the degree of deviation will be easily measured. In the dorsal region, the right side of the body will be more full and rounder than the left, which is contracted and depressed: in the lumbar region the reverse condition will be found, fulness on the left, and sinking in on the right." (P. 140.)

When a curvature has been once established, it generally goes on increasing, and a lateral curvature, as it advances, becomes complicated with distortion of the whole trunk.

" In very bad cases of lateral curvature, the form of the pelvis is affected, but this is so rare an occurrence that it must be considered only as an exception to a general rule. The crest of the ileum on the side opposite to the lumbar curvature will sometimes be elevated, the pelvis will consequently be oblique, and some internal irregularity will occur. The younger the subject, the more danger will there be of distortion of the pelvis, which rarely occurs after the age of twelve. When the lower limbs are tortuous, and the spinal curvature is connected with rickets, we may expect to find distortion of the pelvis. The weight and pressure of instruments have been charged with compressing and distorting the pelvis; if applied to the soft bones of very young children, and considerable pressure used, such effects may occur, but in this instance instruments have been accused of more than can be fairly laid to their charge." (P. 146.)

Anatomical investigations have ascertained that the bones are seldom diseased in lateral curvature. When the deformity originates in very early life, they are usually soft and spongy, and lose their shape by pressure; but generally, in this variety of curvature, the bones are never altered in structure, nor is their figure changed but in old and permanent deformities. The muscles and ligaments are much altered, both in form and texture.

The *curvature forwards* is almost as frequent as lateral curvature: it takes place at all ages, but from very different causes.

" The form and the extent of the curvature depends on the number of the vertebræ, or fibro-cartilages, compressed or removed, as well as on the situation of the disease. When the bodies of many vertebræ are destroyed, the curve will approach to an ellipsis or an angle, but the degree of curvature will also depend on the depth to which the bones are corroded. Sometimes many vertebræ are affected; but the osseous matter absorbed or destroyed is not great, because the effects of the disease are confined to the anterior surface of the bodies: hence there may be very extensive absorption, or caries, with little or no deformity. On the other hand, the bodies of one or two vertebræ may be entirely removed, the column will sink at this point, and the spinous processes will be very prominent. We may readily imagine the mischief done in such cases by shampooers and others, who see nothing but dislocation of the vertebræ in such projections." (P. 154.)

The bodies of the vertebræ are seldom entirely destroyed; that portion which forms the anterior part of the spinal canal is the last to be affected, and in most instances escapes altogether, so as to leave the canal continuous and undiminished in caliber. When the distortion has altered the form of the thorax, and reversed the direction of its long diameter, the heart is situated at a greater distance from the spine than natural. Palpitations and irregularity of its action are common, and organic disease of the heart is often suspected.

Of defective Muscular Action as a cause of Spinal Distortions. In a state of health, the antagonist muscles of the limbs and trunk are reciprocally poised, and equally proportioned in power. When one or several muscles of similar action lose their power of contractility, the limb is drawn by the antagonist muscles out of its natural direction, and some degree of deformity ensues. In high amputation of the thigh, the flexors place the stump nearly at a right angle with the pelvis, because they have lost their controlling antagonists. As the due maintenance of the osseous connexions is in part dependent on the muscles, a defective or irregular action of these organs must have considerable influence in the production of deformities. The integrity of the entire apparatus of the organs of motion depends upon muscular contractility, and the degree of this is consequent on exercise. There are, however, few cases of spinal distortion which can be exclusively referred to mere weakness of muscle or deficiency of irritability: probably in every case of this kind there is more or less relaxation of the ligaments, and some loss of consistency in the fibro-cartilages; but as these latter states are in some instances consecutive to muscular debility, they may be placed in a secondary rank, as causes of distortion. Muscular debility may arise from various causes, but, in the cases now referred to, it is generally the result of too little exercise; and is therefore a cause as well as a consequence of ill health. The attention which has latterly been directed to this subject has led to the introduction of exercises among young females, which tend to prevent many deformities.

"It is well known that muscles which are not called into action lose their character, and, after some time, suffer almost entire annihilation. It has been asserted than inactive muscles degenerate into cellular tissue, and that the latter is not merely the original tissue in which bone, muscle, &c. are deposited, but even that from which all other parts may be formed. The fact appears to be that, in the process of absorption, the fibrous parts of inactive muscles are removed, and the arteries do not deposit new ones, because they are not required, so that, after some time, little remains in the place of such muscles but fat and cellular tissue." (P. 171.)

Inequality of power in antagonist muscles is a frequent cause of deformity in the limbs and joints. As the limbs on the right side of the body are generally more powerful than those of the left, so this must be in some degree the case with the muscles on the two sides of the spine, and, in persons of weak relaxed habits, may be partly the means of producing a lateral curvature. Deformities occasionally result from paralysis of certain muscles, or sets of muscles. Debility and wasting of some part, often of a whole limb, will be observed; and this may be followed by distortion of spine. Cases of this sort are often consecutive, or coexistent with a deranged state of the nutritive organs, and Mr. Beale believes they readily give way as these organs are restored to health. In spinal distortion from defective or irregular action of the muscles, the attention is first excited by the unusual projection of one of the shoulders or hips, and a disposition to stand or sit on one side. "The pelvis is never deformed in cases originating in defective muscular action." In all distortions of the pelvis, there will be found evidence of rickets, or other disease of the osseous sytem.

"It is well known that ladies, with considerable lateral curvatures of the spine, have very easy labours; and, on the other hand, the pelvis will be very much distorted, where the spine is not at all so. The pelvis will seldom be found affected, unless the distortion of the spine began in early childhood. However twisted or curved the back may be, if the long bones of the extremities evince none of the effects of rickets, we may expect to find the pelvis free from deformity. When the curvature has been established after the age of twelve, the pelvis will seldom suffer, but if the distortion appeared before the age of five, when the effects of rickets usually take place, there will be more probability of finding a narrow pelvis. Mr. Shaw thus expresses himself on this subject: 'I shall even venture to say that, on prosecuting the inquiry further, we shall be induced to conclude, that in whatever state of distortion the spine and ribs may be, the bones of the pelvis will not be found distorted, unless there be at the same time marks of rickets in some of the long or solid bones.'" (P. 181.)

Having described those cases of distorted spine which depend on some defect in the muscular system, Mr. B. proceeds to the treatment.

It will be obvious from the causes enumerated, whether debility, paralysis, or irregular action of muscles, that the indications of relief are in all the cases nearly similar, viz. to give tone and power to the muscular system generally, and to the particularly defective muscles locally. This is to be effected principally by exercise.

"It is of the utmost importance, that a correct diagnosis be formed, because the mode of treatment is essentially different in this, and the two classes of spinal distortions described in the following chapters. Nothing, for example, could be more unwise than to prescribe perfect repose in a class of diseases which are dependent on imperfect muscular action: from carelessness in tracing effects to their causes, and from the system of prescribing for symptoms, this has been done, and I know individuals who have been comdemned to a recumbent position, for months and years, whose cases required to be met with various modifications of exercise. In slight cases of spinal deviation, from mere muscular inactivity, perseverance in a course of exercise, adapted to bring the muscles of the spine into regular action, should be rigidly enforced, not only to restore the vertebræ to their true position, but after this has been accomplished, to maintain them so." (P. 182.).

The exercise employed must be regulated by the strength of the individual, and varied according to each particular case. From well-directed gymnastic exercises of different kinds, the form and vigor of the body, as well as the general health, may be much improved. Mr. Beale admits that the use of machinery to extend the spine has not unfrequently been productive of mischief, from the careless or ignorant manner in which it has been employed; but he contends that " it is a most useful auxiliary, and numerous cases of spinal deformity present themselves, which cannot be benefited without the use of machinery, to overcome the contractions of the muscles, ligaments, and fibrócartilages." So long as anchylosis is incomplete, and the rigidity depends on contraction of muscles or ligaments, we know that by extension and exercise we can overcome it: in true anchylosis, dependent on union of bone, remedial attempts would be worse than useless. In the application of machinery to the spine, the danger to be feared is injury to the spinal marrow; but such an accident cannot happen with common care.

"The employment of machinery to extend the spine, is the great secret of cure, in bad cases of curvature. The means used for this purpose are of less importance than prudence and care in their management. I prefer making extension with the patient in the horizontal position. The head and shoulders being fixed by proper pads and bandages to the head of the bed or sofa, extension is made by a screw or a pully at the foot, communicating with straps attached to the sides of a bandage which surrounds the pelvis. Having by a careful examination determined that the curvature is unconnected with disease of the cartilages or the bones, we must ascertain how far the vertebral column can be restored by extension." (P. 188.)

The earlier an attempt is made to cure deformity, the better; but there are few curvatures, originating in muscular derangements, which cannot be entirely effaced before the growth has ceased, and many old-established cases have been cured even some years after this period. In all the exercises employed, the muscles of both sides of the vertebræ should be equally exerted, as well as those of both arms. " A long pole held to the hands, with the arms fully extended, and moved in various directions, is a good modification of exercise; as is also turning a wheel by each hand at the same time."

The subjects next considered are diseases of the Fibro-cartilages and Vertebræ as causes of spinal distortion; and descriptions and diagrams are given of the mechanical apparatus used in the treatment of deformities.

If Mr. Beale cannot claim the merit of originality, he is at least entitled to our approbation for having made a useful compilation upon a very important class of diseases, which cannot fail to prove instructive to surgical students.

An Experimental Inquiry into the Structure and Function of the Spleen. By WM. DOBSON.—8vo. pp. 32. Wilson, 1830.

WE shall not take a retrospective view of all the various opinions that have been entertained respecting the functions of the spleen; the task would be tedious to ourselves, and perfectly useless to our readers, as for the most part fancy has been brought into play, to supply a deficiency of facts. Dr. DOBSON, by way of introduction, refers to the most plausible theories that have been advanced upon this subject. He just mentions the opinion of the ancients: they found the spleen contained a dark-coloured fluid, apparently resembling the bile, except in the blackness of its colour. This fluid they called "*atra bilis*;" and the use of the spleen they considered to be for the secretion of black bile. It was once believed that the spleen was a glandular organ, but no excretory duct has ever been found. The opinions of Dr. HAIGHTON and Sir E. HOME are deemed the most plausible: the former physiologist, finding the spleen diminished in size during a meal, considered that the distended stomach presses on the spleen, thereby determining a greater quantity of blood to the stomach, liver, and pancreas, during the digestive process. Sir E. Home's researches led him to conclude that the spleen consists of a congeries of blood-vessels and absorbents, without any connecting cellular membrane. From this mechanism Sir E. considers the *interstices of the vessels* to be a reservoir for the superabundant serum, lymph globules, soluble mucus, and colouring matter, carried into the circulation immediately after the process of digestion is completed. Sir ASTLEY COOPER inferred, from his own investigations, that the spleen is an elastic reservoir and manufactory of venous blood. Mr. HEWSON thought that the red globules of the blood were elaborated in this organ. Sir **Anthony Carlisle** regards "the compensating heat of the spleen to be the natural provision against the *torporizing* influence of low temperature suddenly applied to the nervous and muscular structures of the stomach. Mr. C. **Bell** regards the spleen as a provision for giving the vessels of the stomach an occasional power and greater activity, enabling them to pour out a quantity of fluid according to the necessity of digestion: and, in addition, he considers the venous blood of the spleen useful in aiding the function of the liver. But to proceed to the investigations of Dr. **Dobson**.

When experimenting on animals for the purpose of ascertaining the effects which different poisons produced on the animal economy, he was often struck with remarkable variations in the size of the spleen: on paying further attention to this incident, he observed that the spleen of a dog, killed a few hours after taking food, was of a very large size, when compared to the spleen of a dog that had fasted for several hours. On examining the different theories of the spleen, one remark was found which coincided to a certain extent with his own observation, that "the spleen is of a large size when the stomach is empty, and small when the stomach is full." Dr. Dobson now resolved to perform a series of experiments upon the subject. The first point of inquiry was to ascertain the changes produced in the spleen by the digestive process, and to ascertain the precise period at which any alteration should be manifest."

"Exp. I. I gave to a middle-sized dog a hearty meal of beef and mutton; the animal ate heartily. In four hours after, I opened the abdomen, and exposed the spleen immediately: it was large and firm; its veins appeared completely gorged with blood: on cutting into the organ, a large quantity of dark coloured blood flowed out: the exact amount could not be estimated; but I should suppose there was about four ounces: it concreted in a very short time. The coagulated mass, however, was soft, easily broken down, and presented more the appearance termed grumous blood, than the proper sanguineous fluid.

"Exp. II. A dog was procured as near in size as the one in the last experiment as could be met with; the animal took a full meal of beef and mutton; in five hours after, the abdomen was opened; the spleen was very large, and turgid with blood. The appearance of the blood was very similar to that in the last experiment; the quantity, however, was much greater.

"Exp. III. The spleen of a dog (of an equal size to the preceding) was examined twelve hours after any food had been taken: a very remarkable difference was observable; it was very small, and flabby, and contained only a very small quantity of blood. The appearance of the blood differed little from that in the preceding experiments: I thought it not quite so dark.

"To ascertain the comparative bulk of the spleen in dogs, I procured two of equal size, and examined their spleens at the same period after a meal; the difference in size was so trifling, as not to invalidate in the least the conclusions I intend to draw from the preceding statements." (P. 11.)

These experiments were repeated with similar results, and others also were performed at various periods, *during* the digestive process and *after* its completion. The size of the spleen was invariably found to be in a ratio to the quantity of nutriment taken into the system, and to the period at which it was examined after the animal had eaten: that is, to three hours after a meal, little alteration in this organ was perceptible; but in four hours after, it was large; and in about five hours appeared to arrive at its maximum, and then gradually to decrease in bulk for twelve hours, which was as far as its condition was observed.

Dr. Dobson next removed the spleen from a dog, to observe the effect which might be produced on the system: "the animal apparently suffered little from the operation." Next day it ate voraciously. For three hours no perceptible alteration was produced; but in *four hours after*, the animal became restless, and sunk into nearly a torpid state: there was every mark of plethora, or overfulness of the vascular system. In the course of two hours from this period the animal began to recover, and in three hours the symptoms had subsided; considerable languor remained. The animal took a large meal twice or thrice in twenty-four hours, and, after each, precisely similar effects were presented. It became more feeble daily, and died a month after the operation.

"I next removed the spleen from another dog, but instead of giving full meals, as in the last experiment, I gave a small quantity of food every hour, or every two hours. The animal ate voraciously; no unpleasant symptoms occurred. This plan was pursued for three weeks, when the animal to all appearance was quite well; in fact, it became fat: the ligature from the splenic artery had come away, and the wound in the abdomen healed. I then commenced giving full meals twice in twenty-four hours: the same train of symptoms followed each meal, and at the same period as in the last experiment, though perhaps not so urgent. The animal died in a month from the commencement of this plan of feeding." (P. 14.)

This experiment does not appear to us to have been well executed: the splenic artery should be tied with single threads cut close; the wound then heals at once. Our impression is, that the bad results of feeding with large meals in these instances was accidental, and independent of the removal of the spleen. It is not unlikely that the animals suffered severely from the seton (for such the ligature was,) kept in the abdomen three weeks, and perhaps died in consequence of this injury alone. Mr. MAYO (Outlines of Physiology,) kept one dog from which he removed the spleen: soon after it had recovered from the injury, it was freely fed, and yet it lived between three and four years in good health.

In both dogs the feces were of a lighter colour than natural.* On examining the body of each after death, a small quantity of limpid serum was contained in the bag of the tunica arachnoides, and more than a natural quantity in the lateral ventricles: the veins of the brain were in a highly congested state: abdominal viscera presented no unnatural appearances; but the portal system of veins was much gorged with blood.

Corollaries regarding the functions of the spleen. Dr. Dobson infers from his experiments, *that the spleen acts as a reservoir for containing the additional quantity of blood which the vascular system has received by means of the nutritive process.*

"It is evident from the remarks on chylification, there is a greater quantity of blood in the system at five hours after a meal than at any other period; and as we have premised that the blood-vessels are not capable of containing this increase with impunity, I infer that the spleen serves as a reservoir to hold this surplus; because at the time the chylifactive process is at an end, the spleen is found distended with blood. Then, as detailed in the third experiment, at twelve hours after a meal, the spleen was small, and contained very little blood: the reason of this phenomenon is obvious; at five hours after a meal, the nutritive process is nearly completed; at five hours after a meal, the spleen arrives at its maximum size: now, as secretion goes on in the various emunctories, there must consequently be a reduction of the circulating mass; and to compensate for this, blood is simultaneously expelled from the spleen, so that in twelve hours the whole is removed; no more circulating through that organ than is necessary for its support.

"We have now to examine the second series of experiments. When the spleen was removed from a dog, and full meals given to the animal, the effects indicated clearly that a greater quantity of blood had been formed than the vessels were capable of containing, compatible with the free action of the vital organs; but as the fluid became diminished in quantity by the secretory functions, healthy action in these parts was again established. But it was observed, that if a small quantity of food was given at a time, though often repeated, no deleterious influence was exerted: that is, if the increase in the volume of blood was not more than equivalent to what had been previously expended by the secretions, no injurious effects were produced.

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* This was not the case in the dog whose spleen was removed by Mr. MAYO. —EDITOR.

"I performed two experiments somewhat analogous to those which were made by Magendie.

"Exp. I. Ten ounces of blood were injected into the jugular vein of a dog, the abdomen being previously laid open. After the injection had proceeded for a short time, I observed the spleen to increase in size gradually until the whole of the blood was injected. This animal had fasted for ten hours, and previous to the operation the spleen was small.

"Exp. II. I opened the jugular vein of a dog five hours after eating, the abdomen being at the same time open: the spleen was large; as blood flowed from the vein, the spleen very perceptibly diminished in size, until the animal fainted. On grasping this organ at the time, a sensation was felt as if it was muscular, and was compressing out its contents with an active force. I did not perceive the slightest evidence of diminution of any other viscus.

"These experiments corroborate the deductions made from the former ones; they illustrate, in short, the principle which I am endeavouring to establish, that the circulatory vessels are capable of containing only a certain quantity of blood with impunity, and that when an increase in the volume is produced, as after digestion, the spleen performs the office of a reservoir to receive the surplus; they show also that, when the fluid contained in the vessels becomes reduced in quantity, as from bleeding, the spleen affords a supply, so as to enable the various organs to perform their necessary offices; and further, they afford collateral evidence of the spleen being more elastic than the blood-vessels." (P. 22.)

Some very brief but acute remarks are made on the pathology of the spleen.

The attempt Dr. Dobson has made to explain the function of this organ is very creditable to his ingenuity. It is more plausible than any other theory with which we are acquainted upon the subject, although we cannot venture to say that this essay completely succeeds in establishing it.

COLLECTANEA.

Floriferis ut apes in saltibus omnia libant,
Omnia nos, itidem, depascimur aurea dicta.

PATHOLOGY.

Case of Poisoning from Nux Vomica. By George Watt, Member of the Faculty of Physicians and Surgeons, Glasgow. (*Glasgow Med. Journal.*)

On the 1st of April last, I was requested to visit Mary Mac——, aged forty, spinster, who was said to have taken poison. I found her lying upon her back on the floor, her arms extended, and removed from the trunk; the inferior extremities likewise in a state of extension, and separated from each other. Her countenance was rather anxious, but she appeared perfectly rational, apparently repenting of the rash act she had committed, and earnestly entreating me to try to save her life. She replied coolly to my interrogations; said she had taken three-pence' worth of nux vomica about an hour before, and that she suffered no pain either in stomach or head. I attempted to give her, by teaspoonsful, two scruples of the sulphate of zinc, dissolved in a little water, but she was unable to swallow, and supposed the difficulty was owing to the awkward posture in which she lay.

On endeavouring to raise her, in order to facilitate the swallowing of the emetic, severe spasmodic action was brought on. The neck and back were thrown into a state of tetanic stiffness, and turned backwards, the arms thrown out from the body, and forcibly extended; the hip and knee joints extended, and so stiff that flexion was utterly impossible. The countenance became at first exceedingly anxious, expressing a state of suffering, then the eyeballs became fixed, and seemed as if about to start out of their sockets, with the jaws locked, and the lips violet coloured, from respiration being obstructed by the spasm of the muscles of the chest, which, with those of the abdomen, were hard and tense; whilst the whole body was agitated with a tremulous movement. Being laid down, the spasmodic action diminished in two or three minutes: she was still unable to swallow, but, anxious for relief, requested to be turned slowly round upon her side, the attempt at which brought on a return of the tetanic spasms; and, on laying her again upon her back, the respiration could not be perceived, and the pulsation of the heart was gone, although, from slight tremulous movements, life did not seem to have left her entirely for nearly a minute.

About half an hour before I was sent for, her mother called in several of her neighbours, to whom she at once told what she had done, without the slightest appearance of remorse, and she did not appear to have been drinking that morning. At that time she made many efforts to vomit, but without effect. These efforts, however, had ceased before I saw her. When put to bed, the convulsive tremors were slight, with intervals of almost complete cessation of spasms. These intervals soon became more and more short, and the spasms so severe that the women about her could not prevent her falling out of bed upon the floor, and it was only then they first thought of sending for medical assistance.

It was nearly sixty hours after death before leave was obtained to open the body. On removing the skullcap and dura mater, the vessels of the pia mater did not appear enlarged or distended: a considerable quantity of serum was effused over the whole superficies of the brain, and likewise upwards of a teaspoonful in each of the lateral ventricles. The substance of the brain, though soft, (I thought more so than usual at the same period after death,) was natural. The lumbar portion of the spinal cord was much softer than the cervical, and the veins on the posterior surface were considerably engorged, for about two inches. The lungs presented less sanguineous engorgement than is usually found in inspections. The heart was flaccid, the ventricles and auricles completely emptied of blood. The stomach contained about a pint of thick dark-coloured fluid, with a fetid smell; the tunics were very easily torn, and in several parts the internal surface presented a marbled appearance. The commencement of the duodenum was so enlarged as to present the appearance of a second stomach; the muciparous glands were enlarged, but there was no softening of the mucous membrane.

Mr. GRAHAM, lecturer on chemistry in this city, examined the contents of the stomach. "The extract (which he obtained) was intensely bitter, and had the smell of liquorice, a property of nux vomica. A solution of the extract in water gave a precipitate with ammonia, but was not reddened by nitric acid. These last properties, however, although the only tests of strychnia which Orfila and Barruel suggest, are by no means characteristic of that principle: that of being reddened by nitric acid, is of an accidental kind. I would rely more upon the taste and odour of the extract."

In this case, death was evidently more immediately caused by the suspension of respiration during the tetanic paroxysm. After death, the rigidity of the body rapidly disappeared. This rigidity has been supposed capable of passing imperceptibly into the stiffness of death, without any relaxation being observable. It is likewise supposed that, in cases of poisoning from nux vomica, the pain and suffering is dreadful. In the above case no pain was complained of during the intervals of the spasmodic paroxysms.

If in similar cases the surgeon is called in sufficiently early, (which will seldom be the case where self-destruction is premeditated,) the prompt administration of an emetic may remove the poisonous matter from the stomach, to the parietes of which, when in powder, it is supposed to adhere very keenly. To wait till all the necessary appendices of a stomach-pump can be procured, would too often cause a loss of time in a case where every second is of the utmost consequence. In one case on record the surgeon went unprovided with an emetic, and found his patient without any bad symptoms: he left her in order to procure one, and, on his return very soon after, found her *in articulo mortis*. The efficiency of the emetic will depend very much on the state of the stomach at the time. If it contains a quantity of still indigested food, there is a greater probability of the whole of the poison being again rejected. If empty, the effects of the poison will be more immediate on the system, and probably, before a surgeon can be called, the spasms have become so severe as to prevent swallowing altogether. In the first condition of the stomach, the evacuation of its contents will be much more easily accomplished by the action of an emetic assisted by tepid drinks, than by the use of a stomach-pump, and with a greater probability of the stomach being completely cleared out. In the second case, it seems to me very doubtful whether the attempt to introduce the tube would not bring on such an attack of spasm as would render its completion impossible. The swallowing of the emetic in the above case, I suspect, was prevented by spasms of the œsophageal muscles, brought on by the attempt; and, if such resistance is made to the passage of a fluid, the introduction of a tube must meet with still more. If, however, the tube of the stomach-pump has reached the stomach, as iodine has been found a sort of antidote to its alkaloid preparation, I conceive that, in some cases, advantage might be found from washing out the stomach several times with tepid water, in which a quantity of tincture of iodine had been agitated. But let it be remembered that the success of iodine seems to depend only on its being administered in two or three minutes after the poison has been taken.

On Polypus of the Uterus, attended by unusual Circumstances. (Dr. GOOCH *on Diseases of Women.*)

In a vast proportion of cases, to speak in numbers, in nine out of ten, to whatever part the stalk grows, frequent hemorrhages from the uterus form the symptom of the disease, which attracts the chief attention of the practitioner, and the case is long mistaken for common menorrhagia; but when the tumor grows from the neck or lip of the uterus, it sometimes occasions nothing but an obstinate and profuse leucorrhœa. The following case shows this, and shows also how liable diseases of this part are to be overlooked for want of examination by touch.

I was sent for, one evening, to see a lady about thirty years old, and was told that she had been troubled for nearly two years with profuse leucorrhœa. As she was unmarried I was going to prescribe for her without examination, when I was told this would not be satisfactory. It then came out that she had seen another physician that morning, whose statement appeared to her and her mother so incredible that they would not believe it until it was corroborated by a second medical witness; but I was not allowed either to meet this physician, or to know what his statement had been. Little as I expected it, I found a small polypus, about the size of a walnut, growing by a slender stalk to the cervix uteri. The ligature was successfully applied, and the patient recovered.

Women who have a polypus of the uterus, especially if it grows from the neck or lip of this organ, sometimes become pregnant. Of this I have known two instances. In one the tumor was discovered in the fifth month of pregnancy, and was removed by the ligature. The pregnancy went on to the ninth month, when the patient was safely delivered. In the other case the tumor was not discovered till the commencement of labour, and occasioned the death of the patient a few hours after delivery.

Mr. Borrett, surgeon at Yarmouth, with whom, when this happened, I was residing as pupil, was called to a lady in labour with her sixth child. On his first examination he found a large fleshy tumor within the vagina. The anterior segment of the os uteri was easily felt, but the posterior was occupied and covered by the attachment of the tumor. After the orifice had dilated and the membranes had burst, the head of the child not descending, Mr. Borrett introduced his hand, brought down the feet, and extracted the child. The placenta was expelled spontaneously. The patient now being delivered, and easy, he left her at seven in the morning. At three in the afternoon he found her in strong pains, as if there was another child; but, as the abdomen was flat, and the contracted uterus could be distinctly felt in the abdomen, he was satisfied that there was not, and gave her an opiate. At eight o'clock at night, he found that the pains continued violent, with a sensation as of a substance coming away, and on examination he discovered a soft round tumor pressing against the outer orifice. What could it be? He would have thought that it was the uterus inverted, but it was the same tumor which he had felt in the morning before the child was born; there was no hemorrhage; the placenta had been expelled spontaneously, and the uterus was distinct in the hypogastric region. He consulted his medical friends in the town, and sent off to Norwich for Mr. Rigby. The pains continued with violent expulsive efforts all night, and the next morning they found her with a languid pulse and a pallid countenance; a large fleshy livid tumor had been forced out of the vagina, and every pain brought it more and more in sight: she continued to suffer and to sink through the rest of the day; in the evening Mr. Rigby arrived, but she had expired about half an hour before. As soon as he arrived, he examined the tumor, and was convinced that it was the inverted uterus. On opening the body next morning the uterus was found contracted, but its orifice was dragged down as low as the external orifice, by a tumor which grew from it by a thick stalk; it was attached to the posterior part of the orifice, and some way up the neck, was of a livid colour, and weighed three pounds fifteen ounces.

What would have been the result of this case, if a ligature had been applied round the stalk of the tumor, and its body cut off just below, as in the case No. V?

When the polypus grows from the lip of the uterus, and its stalk is very thick, as two or three inches in diameter, the other lip and the orifice of the uterus are quite lost, and cannot be detected by touch. In this case, of which I have seen several instances, instead of feeling a slender stalk encircled by the orifice of the uterus, or the stalk and the orifice by the side of it distinct from one another, we feel at the top of the vagina, where the neck of the uterus usually projects into its cavity, a thick stalk which lower down enlarges into a globular tumor, without any vestige of the neck or orifice of the uterus. I have seen the most experienced practitioners in London puzzled to tell what was the nature of the tumor, and what ought to be done for it.

The following case is a specimen of this puzzling combination of circumstances.

A lady, forty years of age, who had never been pregnant, came to London for advice for frequent hemorrhages from the uterus, which had not been relieved by the usual remedies, and had greatly injured her health. On examination there was found in the vagina a large round tumor, terminating in a very thick stalk, which grew from the situation of the neck of the uterus. This stalk, however, was not encircled by the orifice of the uterus, either completely, as in polypus of the fundus uteri, or partially, as in polypus of the neck. No orifice could be felt. On passing the finger round the uppermost part of the stalk, it formed, with the adjoining part of the vagina, a blind corner all round, as is felt in passing the finger round the neck of the uterus. For some time the nature of the tumor and the propriety of an operation were much doubted, and on this point I was consulted. On carefully examining it, I felt a little depression at the uppermost and anterior part of the stalk. This I conjectured was the orifice of the uterus, small, from the patient never having been pregnant, and dragged out of its natural direction, and obscured by the thickness of the stalk. That a thick stalk growing from the edge of the orifice might so obscure that orifice as to make it difficult to be felt, particularly in a woman who had never been pregnant, seemed intelligible and probable. The tumor was insensible, smooth, and of the consistence of a polypus. Thus it appeared so reasonable to believe that the tumor was a polypus, so certain that if it was not removed the patient would ultimately die of the hemorrhages, and so probable that the operation would be successful, that, notwithstanding the obscurities of the case, I advised it to be performed: the ligature was applied to the stalk, and it was gradually tightened every day. On the fourth day the ligature gave way, and the instrument came off without the tumor: another ligature was now placed in the groove left by the former, and gradually tightened every day. On the fifth day, having made its way completely through the stalk, it came away with the instrument, leaving the tumor loose in the vagina. It was necessary to introduce the whole hand, in order to extract the tumor, which was found to be as large as the end of a new-born child. On examining the vagina a short time afterwards, the neck of the uterus was found in its natural situation, and with its natural orifice. The hemorrhages ceased, menstruation became regular, the patient rapidly recovered, and has been well ever since.

Some years before this case occurred I was consulted, together with two of the most experienced practitioners in London, about a lady who had been long subject to hemorrhages from the uterus, by which her health had been broken, and in whom a large round tumor had been discovered in the vagina. On examining it carefully the orifice of the uterus could be felt, the anterior lip of which seemed as if it was prolonged into a thick stalk which terminated in a round tumor. As the stalk was not encircled by the orifice of the uterus, it was thought that it could not be a polypus, and we agreed in dissuading from the application of the ligature. This lady died some years afterwards. If I had known what I do now about the thick-necked polypus of the lip of the uterus, and that there is a large proportion of removable polypi, of which the stalk is not encircled by the orifice of the uterus, I would have applied the ligature.

A polypus may have an unusual form, as that of a solid cylinder; it is generally globular or pyriform, with a stalk like an elastic gum bottle; but I have seen two cases in which it was cylindrical, about the size of half the wrist, and the unusual form occasioned great doubts about the nature of the case and the mode of treatment.

A woman for a long time had suffered frequent hemorrhages from the uterus, which had resisted the usual remedies and greatly injured her health. At length, one day, a substance of a singular appearance suddenly protuded from the vagina; it hung out beyond the external orifice nearly half a foot; in form it was like a flattened cylinder, about half as thick as the wrist; it felt somewhat like an intestine, but on careful examination was found to have no cavity; it was very soft; on tracing it upwards it was found to extend through the vagina, and through the orifice of the uterus, beyond which it could not be traced; it was firmly attached within, for on pulling at it, it did not come away; it was of the same diameter through its whole length: a ligature was applied to it just below the orifice of the uterus, and in a few days it came away, the patient immediately losing the hemorrhages by which she had so long been weakened.

A polypus is sometimes so small, it seems incredible that it should occasion the frequent hemorrhages which attend it, yet the hemorrhages cease on the removal of the polypus. I have felt them as small as a filbert without its shell, growing to the neck or lip of the uterus; they were so small that, on being touched, they slipped into the orifice of the uterus, and there remained concealed till the finger was withdrawn and the patient sat up, when they dropped down again into the vagina.

I saw an elderly woman with a polypus of this size: the day was fixed for its removal, but before it arrived, whilst she was using a lotion with a long pewter syringe, it fell away, and from that time the hemorrhages never returned.

Dr. Babington took me into the country one evening with my instrument, to remove a small polypus about the size of a walnut, which he had discovered in a lady the day before. He had described the case to me about a week before, when I advised him to examine the uterus, and said I thought that he would find a polypus. She was about fifty-five years of age, and for a year and a half had been subject to frequent hemorrhages from the uterus without pain. We found her in bed, ready for the operation. The polypus was so small that I took it between my fore and middle fingers and drew it downwards, on which the stalk broke and the little polypus came away. Dr. Babington, on examining immediately afterwards, was surprised to find no polypus, on which I showed it him in my hand. From this time the hemorrhages never returned. These little polypi are generally too small for the ligature, and if they cannot be pulled away with the finger, should be twisted off by a pair of surgeon's dressing forceps.

PRACTICAL MEDICINE.

Croton Oil in Tetanus. From Mr. Lawrence's Lectures; quoted by Dr. Short, in his Essay on Croton Oil.

About three years ago I was called to a case of Tetanus, in which there was very great danger, and where the following plan of treatment was completely successful, although the case, at the first view, seemed a very unpromising one.

It was the case of a gentleman, who was about fifty years of age, of a very robust and full habit, accustomed to free living, a man of a very active turn of mind, and who had various and important business on his hands. He was pursuing his avocations in a very active way at the time he met the accident that led to the tetanus, which was in the hottest season of the year. He was riding when, his horse having fallen, he was thrown forward, and his face coming to the ground, he grazed the dorsum of his nose against the gravel of the road, so as to make a slight wound there: that was the only actual wound he received. He thought so little of the accident, that he did not discontinue his ordinary pursuits, nor change his ordinary mode of living, which was, as I said, rather a free one. I do not know that he did more than put a bit of brown paper, with vinegar, on the grazed part. However, although the injury was very slight, yet, at the end of about ten days, when the wound was just getting well, on sitting down to dinner, having asked some friends to dine with him on that day, he felt that he could not use his jaw very freely: he felt some difficulty in masticating and swallowing his food: he was at length induced, more in conformity to the solicitations of his friends than in accordance with his own feelings, to send for a medical gentleman, who took a little blood, and gave him some opening medicine.

Next day he was very much worse, and I consequently saw him. At this time the symptoms of tetanus were very manifest: there was difficulty in opening the mouth, and in masticating; pain behind the sternum, extending through to the spine; his pulse full and strong; his bowels had, however, been pretty effectually relieved by the opening medicine he had taken the day previous. I told him that he should go to bed immediately; for he was then sitting up, as if he had been going about his ordinary avocations. He was very largely bled, and I prescribed very active medicines. The blood was found next day to be buffed and cupped, the opening medicine had acted freely, and he was better. I prescribed a repetition of venesection and a continuation of the aperients, being desirous of producing a still further action on the alimentary canal. He took a pretty large dose of calomel and jalap, which was followed up by a purgative draught composed of senna and salts, but on this occasion no effect was produced by them.

It being a few miles from town, I did not see him in the evening, but the medical gentleman in attendance gave him a large quantity of castor oil, which did not act; he also administered a clyster, but neither did that operate. By the time, then, that

I saw him next day, all these medicines had not acted, and all the symptoms were considerably worse: the neck and back had become affected. I therefore immediately directed the administration of the croton oil. He took a single drop in a teaspoonful of light gruel; and within about an hour a most violent action was produced in the bowels. He discharged such a quantity of matter, of various kinds, from them, as altogether astonished him and all those about him. They seemed to be quite at a loss to know how to describe the quantity. It seemed he had filled and overfilled the closestool pan, and that so abundant a discharge had taken place from the bowels as was never before witnessed. This was followed by considerable relief of all the symptoms; but still the complaint went on; and, in fact, it proceeded to the full developement of tetanus over the whole body.

The treatment of the case consisted from this time in the regular administration of the croton oil, so as to secure a continued action of the bowels. In the first instance a drop of the oil did this; but after a time or two more, it required a drop and a half, and then the evacuations were very copious indeed. It was observed by the gentleman in attendance, that, if ever he had to prescribe any thing again in the shape of antispasmodics, he would exhibit the croton oil, because it had, in this instance, a much greater effect than any thing he had ever seen; the muscles, which before were very rigid, being soon very much relaxed: indeed, the patient acknowledged, although greatly depressed and weakened by the effect, the power it had in relaxing the rigidity.

I need not detail the whole of the particulars of this case: it is enough for me to say that the tetanic affection proceeded until all the parts of the muscular system were involved; and they were as severely involved as in any case I ever saw. This gentleman frequently remained with all the muscles of the trunk and limbs in the most violent state of rigidity; he then had convulsions of the most serious kind, so that, although he was a man of strong mind and great resolution, he could not at times help crying out most loudly.

It became necessary afterwards to exhibit opium; and the learned lecturer concludes by stating, that "by the continuance of the two remedies, the regular exhibition of the croton oil and the opium, the complaint gradually subsided, and this gentleman completely recovered."

Web of the Black Spider in Delirium Tremens. (WRIGHT *on Delirium Tremens; American Journal of Med. Sciences.*)

The web of the black spider has received commendation from many respectable sources as a sedative agent, capable of calming, with peculiar ease and certainty, morbid excitability of the cerebral and nervous systems. On the credit of those qualities it has been employed in the various forms of temulence, and not without a share of reputed success, sufficient to entitle it to consideration in that state of constitutional irritation. In the summer of 1827, we tried this article in many cases, and in full doses. To test its qualities, it was given, where the state of the patient admitted, uncombined with opiates. When thus used, its effects were generally partial or doubtful, and its powers inadequate to the production of tranquillity or sleep. In one case only, have I found this substance to exert great or decided sedative attributes: this was the case of an intelligent young man, (in private practice,) who, after consuming, by his own report, three quarts of brandy in thirty-six hours, fell into a state of temulent excitation so excessive that he was incapable of keeping a recumbent or even a sitting posture for more than a moment, but paced his chamber with a cease-less step for two days and nights. He was not delirious: on the contrary, his conversation was rational, though hurried and vehement. But he was so far under the influence of spectral hallucination, that if he closed his eyes for a moment, day or night, he was instantly visited by a host of phantoms of frightful aspect;* hence chiefly his aversion to lie down, or make any voluntary effort to sleep. This patient took opium, opium with camphor, and black drop, at short intervals, and in full doses, until the quantum of opiate approached the utmost limit of probable safe administration, without even partial relief of constitutional irritation, or any apparent proneness to sleep. The temulent excitement kept unabated for twenty-four hours, the second night passed in constant vigilance, locomotion, and mental excitement, and it seemed probable that excitation so intense, protracted, and unremitting, must soon lapse into delirium or convulsions. At this time, the morning of the third day, (the second of my attendance,) he began the use of the fresh web in pills of five grains every hour. Its effect was prompt and unequivocal. He calmed, even sensibly to himself, with every dose, and watched with desire for the time of repeating the pills. The first effect of the web was to abate his restless movements about the room; he became disposed to sit down, and kept his chair, with short intervals of walking, for some hours. In the evening he consented to go to bed, got up once or twice, but returned to bed without difficulty, took an opiate, at eight, the first for eighteen hours, and slept continuously for eight hours. The cure was completed without difficulty, by repeating the web less frequently next day, quiet, suitable nourishment, and another opiate at night. The patient spoke emphatically, both the first and second day, of the soothing influence produced by the pills. He was not at the time informed of their composition.

SURGERY.

Case of Division of the right Carotid Artery, successfully treated. By C. B. GARRETT, Esq. (*Midland Med. and Surg. Reporter.*)

A poor man, named James Hancock, æt. twenty-four, resident in this neighbourhood, having been engaged and detected in an intrigue of gallantry, laboured under depression of spirits, and thrice attempted suicide by hanging, in consequence of which, fears were entertained by his family that he would again resort to some mode of self-destruction, and probably a more effectual one. On the evening of the 18th of May last, the man borrowed a razor from a neighbour, for the purpose, he alleged, of shaving himself. His parents having received information of this, watched him the more closely, and observed him going into an adjacent apartment, where he put his intentions into execution; but his courage failing him, he immediately ran into the room where the family were, pressing with all his might on the bleeding vessel.

This occurred about eight o'clock P.M., and happening to be at a house within a few yards, I was with him instantly, and found he had made two incisions in a transverse direction, the one about half an inch above the other; the uppermost and first incision extended from the left side of the throat, over the pomum adami, for about two inches; and the other, about three inches in length, cutting deeply into the trachea, and terminating immediately after dividing the right carotid artery and jugular vein; the artery was bleeding profusely, and the stream of blood was of about the circumference of a swan shot. I lost no time in securing the artery by means of a ligature, although it had receded considerably under the integuments. About a minute and a half only had elapsed betwixt the perpetration of the desperate act and the securing of the artery. Nevertheless, the hemorrhage was excessive, and in this short space of time an amazing quantity of blood was lost. The man was now apparently dying; his respiration laborious and protracted; eyes glazed; pulse nearly imperceptible, and a cold diaphoresis exuded all over the surface of the body. I immediately exhibited diffusible stimuli; had his feet put in warm water, and used all means possible to produce re-animation. When vitality was again manifest, I with great difficulty applied sutures to the incisions, owing to the hacked and ragged state of the parts. Having, at length, succeeded, and applied adhesive strips, I discovered venous blood oozing from the right jugular vein, (I imagined,) but it soon ceased. I ordered him weak brandy and water at intervals, and, as soon as possible, removed him to bed, taking care to secure his head from falling back, and so tearing the wounds asunder. I visited him at half-past ten again, and found him rather feverish, at the same time very weak. Discontinued the brandy and water, and, as his bowels had not been moved for two days, administered Olei Ricini ℥vi. and gave a mixture of tincture of henbane and camphor julep every three hours.

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* Among the delusions practised by imagination on reason, the impulse to self-destruction was predominant; a catastrophe said to have been unhappily realized in less than a year after, while confined in one of the public institutions on account of derangement from drink.

I saw my patient at ten o'clock on the following morning, when he complained of pain in the head and drowsiness. The bowels had been freely moved; tongue enveloped in a white coat; pulse weak and quick; considerable pain in the larynx and summit of the trachea; the wounded parts highly inflamed; deglutition extremely difficult; feet and legs cold as death, to which were applied heated bricks, and I ordered an antiphlogistic lotion to the throat externally, composed of tincture of opium, acetate of lead, and water.

I now began to fear that his constitution would not recover from the shock it had sustained, and, as he was gradually becoming more debilitated, I exhibited, every hour and a half, ether, laudanum, and camphor julep; and occasionally sago, with a little sherry in it. He now began to recover strength, and at four P.M. I found him much better, and the pain completely removed from his head. A glow of heat diffused throughout the system, and pulse considerably elevated and more full. Discontinued the draught, and, from that time, gave him saline medicines principally, with calomel and opium at bedtime occasionally.

On the 20th, I removed the dressings, and found the parts in a most healthy condition, and generating a "laudable pus," the inflammatory symptoms having considerably abated. The proper dressings, and the application of the above lotion occasionally, together with a proper attention to regimen in diet, exercise, &c. produced a salutary effect, and the man is now perfectly recovered, owing his life entirely to the immediate assistance rendered, and I have no doubt but that, in half a minute longer, he would have died from loss of blood. He is, however, now quite well, retaining the cicatrix as the only visible demonstration of his imprudence, and, as it were, showing a conspicuous beacon in warning any who may have been inclined to follow his course, to avoid the shoals of dishonour and profligacy, which are the too frequent instigators of the act.

Remarks upon the application of Ligatures to the Penis, after the method of M. GRÆFE. By M. MICHAELIS, of Berlin. (*Journ. der Chir. und Augenheilkunde.*)

Towards the close of the 17th century, Ruysch and other surgeons adopted the practice of applying ligatures to the penis, but latterly this operation has been neglected. In 1815, M. Græfe revived it. M. Michaelis records four cases which appear to be in favor of the practice. The subject of the first operation was a man twenty-nine years old, who had contracted, from impure connexion, a venereal ulcer upon the glans penis. The ulcer yielded to a course of mercury, but returned in a few months, and then resisted every plan of treatment. It rapidly increased in extent, and sometimes bled very profusely. In about a year after the patient had been first diseased, it was deemed necessary to remove the penis: he was removed to Berlin to be operated upon by Græfe. A catheter was introduced into the urethra, and then, with a strong ligature, the penis was strangulated immediately behind the glans. The patient bore the operation with great sang froid, and without appearing to suffer the least pain. No fever followed. In the evening of the same day the part beyond the ligature was deprived of vitality, and the ligature was tightened without any inconvenience to the patient. On the second day the dead part was detached and the catheter was withdrawn. The cure proceeded so rapidly that in one month the patient quitted Berlin.

Case II. Half the penis was cancerous. The operation was performed as in the last case: but little pain was complained of. In twenty-four hours the sphacelated part was removed, and the cure proceeded favorably, being interrupted only for a short time by an attack of intermittent fever, which occurred the third day after the operation.

Case III. After an old venereal disease, cancer of the penis occurred. The patient felt perfectly well after the operation. No fever followed, and the wound rapidly healed. Ten days after the operation the man quitted Berlin.

Case IV. A man, sixty years of age, was affected with cancer of nearly the whole of the penis. The disease had arisen about a year after several ulcerations which had appeared upon the glans without any known cause, and which, by uniting, had formed one vast ulcer, which extended to near the pubis. In applying the ligature it was necessary to draw the penis firmly forwards, in order that no diseased part might remain. Fifteen days after the operation the patient had perfectly recovered.

Remarkable case of the re-union of a divided part. In the Quebec hospital Reports we find the following case. A man, in chopping wood, cut off the first phalanx of the middle finger. For two hours after the accident he remained occupied at home. Although the divided portion of his finger then appeared to be deprived of vitality, it was determined to follow the plan of Balfour of Edinburgh, and to attempt to re-unite the parts. The tip of the finger was fixed to the stump by adhesive plaster, and in three days union had taken place in two or three parts, and the extremity of the finger which had been divided had as much sensation as any other part of the body. The dressing was continued, and in three more days the re-union was complete.—*Baltimore Adviser.*

MEDICAL JURISPRUDENCE.

Poisonous Gases. Case of Death from inhaling Nitrous Ether Vapour. (Midland Med. and Surg. Reporter.)

On the 31st of March, an inquest, of an interesting nature, was held on the body of Elizabeth Stephens, at the house of Mr. Thomas, druggist, Hay, Breconshire, before the coroner, C. Ekins, esq. The deceased lived in the service of Mr. Thomas, and went to bed in perfect health the night previously; but did not rise at her usual hour in the morning, in consequence of which, one of the family went to call her, but found the door fastened, which being broken open, she was found dead, lying on the right side, with the arms folded across the breast as in profound sleep, and the features not at all disturbed.

Medical assistance was immediately procured, and as the material facts of the case were given by the medical attendants, before the jury, we shall give the result of their examination, and the verdict, and make such remarks as the circumstances seem to call for.

Richard Procter, surgeon, being duly sworn, stated that he, jointly with Mr. Hathway and Mr. Henry Procter, opened the body of the deceased, and found the coat of the stomach of the deceased a little inflamed, with a small quantity of fluid in it, not exceeding one ounce; there did not appear to be any gritty substance in the stomach. The intestines leading from the stomach appeared turgid. On further examination, the uterus was found enlarged, and its outer coat highly vascular. On its being opened, it was found to contain a male fœtus, indicating that she had been pregnant about three months. Witness further stated that he saw the deceased soon after the body was discovered, and remarked that a large jar, containing upwards of three gallons of spirits of nitrous ether, was broken, and the contents spilt about the room; and the room being small, and the atmosphere being highly impregnated by the said spirit, witness was of opinion that it was sufficient to have caused the death of the deceased.

Mr. Henry Procter stated that he was present at the examination of the deceased, and concurred with the former witness in his opinion as to the cause of death.

Mr. Nicholas Hathway, surgeon, stated that he was present at the examination of the deceased, and found the stomach and uterus in the state described by the first witness. He was further of opinion, that the impure atmosphere of the room, caused by the evaporation of so large a quantity of spirits, may have produced death, as the lungs were found in such a high state of congestion as to prevent the passage of air through their cells. The witness could not account for the inflamed state of the stomach.

The verdict of the jury was, that the deceased died in consequence of the effluvia arising from the nitric ether, as described by the evidence.

Observations. It is much to be regretted that in this very rare, and, we believe we may say, unparalleled occurrence, the examination of the body was confined to ascertaining the state of the lungs and stomach. The condition of the brain, the heart, and of the whole alimentary canal; the state of the blood, and also the appearances of the surface of the body, should undoubtedly have been mentioned, not only with a view of answering the great ends of the inquiry for which the jury was summoned, but also to throw light upon an important toxicological investigation.

There can, however, be no doubt that the state of the body, in this instance, so far as the examination of the lungs was carried, corresponded with the morbid appearances left in the body after poisoning by carbonic acid gas. Dr. Schenck, medical inspector of Siegen, in reporting two cases of death caused by the vapours of burning wood, notices paleness of the countenance as a singular accompaniment of cerebral congestion; and calls the attention of medical jurists to the extreme calmness of the features as a general character of this variety of poisoning. The lungs, too, in all these cases, are distended with black fluid blood; but in addition to this, according to Portal, the vessels of the brain are gorged, and the ventricles contain serum.*

In Wildberg's collection of cases, there is a report on two people who where suffocated in bed, in consequence of the servant having neglected to open the flue trap when she kindled the stove in the bedchamber; and in each of them Wildberg found all the appearances described by Portal. Mertzdorff has related a case of death from the same cause, in which, together with the preceding appearances, an effusion of blood was found between the arachnoid and pia mater, over the whole surface of both hemispheres.†

We cannot, for a moment, hesitate in believing that the spirit of nitrous ether is capable of producing, when inhaled largely, fatal consequences; as its vapour is known to exert all the influence of a powerful narcotic poison upon the system, and we have recently heard of an instance where sulphuric ether, (whose action is said to be less powerful,) being inhaled by a stout man, produced nearly fatal consequences. In this instance the young man, by breathing for some time the vapour of sulphuric ether, fell into an insensible state, and remained almost apoplectic for some hours, and doubtless would have died had he not been removed from the situation in which he was inhaling the poisonous gas. As, however, the co-existence of inflamed stomach and pregnancy, in the case under consideration, was a circumstance in itself likely to raise suspicions as to the manner in which the deceased came by her death, it became the more necessary for the medical witnesses to show, first, that in every particular disclosed by a careful examination of every part of the body, the truth of their evidence was borne out by the investigations of previous examples where poisonous gases had occasioned death; and, secondly, that no morbid traces were discoverable which indicated that any narcotic, or other poison, had been swallowed.

We may here hazard an opinion we have long held, that the inquest system of this country does not work well. Had such a case as the foregoing occurred amongst our continental neighbours, a full and minute report would have been made of all the particulars connected with it, and nothing would have been left to conjecture, which a patient chemical and anatomical investigation could have disclosed. To the neglect in this country of this kind of medico-legal investigation, may be attributed the meager reference to works in our own language on these important topics, whilst our neighbours, both in France and Germany, have succeeded in collecting together a large store of materials, the fruits of long-continued labour and indefatigable research. At this time, when our legal institutions are undergoing a strict scrutiny, which in some instances has led to wholesome reform, it is well worthy the consideration of our enlightened statesmen and lawyers, whether some material improvement might not be effected in the mode of conducting inquiries before the coroner.

* See Dr. CHRISTISON on Poisons, p. 602.

† Consult Dr. Christison on Poisons, p. 603.

INTELLIGENCE.

APOTHECARIES' HALL, SEPTEMBER 1830.

Regulations to be observed by Students whose Attendance on Lectures shall commence on or after the 1st of January, 1831.[*]

EVERY candidate for a certificate to practise as an Apothecary, will be required to produce testimonials of having served an apprenticeship[†] of not less than five years to an apothecary:

Of having attained the full age[‡] of twenty-one years:

Of good moral conduct:[§] and

Of having devoted at least two years to an attendance on lectures and hospital practice.

Course of Study. The candidate must have attended the following courses of Lectures:[||]

Chemistry, two courses; each course consisting of not less than forty-five lectures.

Materia Medica and Therapeutics, two courses; each course consisting of not less than forty-five lectures.

Anatomy and Physiology, two courses; Anatomical Demonstrations, two courses; of the same extent as required by the Royal College of Surgeons of London.

Principles and Practice of Medicine, two courses; each course consisting of not less than forty-five lectures, to be attended subsequently to the termination of the first course of lectures on Chemistry, Materia Medica, and Anatomy and Physiology.

Botany, one course.

Midwifery, and the Diseases of Women and Children, two courses; Forensic Medicine, one course; to be attended during the second year.

Students are moreover recommended diligently to avail themselves of instruction in Morbid Anatomy.

The candidate must also have attended for twelve months, at least, the Physician's Practice at an Hospital containing not less than sixty beds, and where a course of Clinical Lectures is given; or for fifteen months at an Hospital wherein Clinical Lectures are not given; or for fifteen months at a Dispensary[¶] connected with some Medical School recognized by the Court. The whole of such attendance to be subsequent to the first year of attendance on lectures.

[*] Students who are at present pursuing their medical studies, and those who may begin to attend lectures at the commencement of the next medical session, (viz. October,) will be received as candidates for examination by complying with the Regulations heretofore published.[*]

[†] The apprenticeship must have been served with a person legally qualified to practise as an apothecary, either by having been in practice prior to or on the 1st of August, 1815, or by having received a certificate of his qualification from the Court of Examiners.

[‡] As evidence of age, a copy of the baptismal register will be required in every case where it can possibly be procured.

[§] A testimonial of moral character from the gentleman to whom the candidate has been an apprentice, will always be more satisfactory than from any other person.

[||] The lectures required in each course respectively, must be given on separate days.

[¶] Certificates of attendance on the physician's practice at dispensaries will continue to be received until the 1st of January, 1833, from all such as have heretofore been admitted, but after that time the present regulation will be strictly adhered to.

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[*] Vide London Med. and Phys. Journal for November 1829, p. 472.

The testimonials of attendance on Lectures, and Hospital Practice, must be given on a printed form, with which Students may be supplied, on application, at the under-mentioned places.

In London, at the beadle's office, at this Hall.

In Edinburgh, at Messrs. Mac Lachlan and Stewart's, booksellers.

In Dublin, at Messrs. Hodges and Smith's, booksellers.

In the provincial towns, where there are Medical Schools, at the Hospital, or from the teacher who keeps the register of the School.

Students are enjoined to observe that no other form of testimonial will be received; and that no attendance on lectures will qualify a candidate for examination, unless the teacher is recognized by the Court.

The teachers in Dublin, Edinburgh, Glasgow, and Aberdeen, recognized by the constituted medical authorities in those places respectively, are recognized by the Court.

Registration. A book* is kept at the Hall of the Society for the registration, at stated times, of the names of students, and the Lectures, Hospitals, or Depensaries they attend.

All students, in London, are required to appear personally, and to register the several classes for which they have taken tickets; and those only will be considered to have complied with the regulations of the Court whose names and classes in the register correspond with the testimonials of the teachers.

The book will be open for the registration during the first twenty-one days of the months of February, June, and October, from nine o'clock until two.

The Court also require students at the provincial Medical Schools to register their names in their own handwriting, and the classes they attend, with one of the teachers† in each respective school, within fourteen days from the commencement of each course of lectures, and those students only will be deemed to have complied with the regulations whose names are so registered.

Each student, at his first registration, will receive the printed form on which he is to obtain the certificates of his teachers.

The examination of the candidate will be as follows:

1. In translating parts of Celsus de Medicina, or Gregory Conspectus Medicinæ Theoreticæ, Pharmacopœia Londinensis, and Physicians' Prescriptions:
2. In Chemistry:
3. In Materia Medica and Therapeutics:
4. In Botany:
5. In Anatomy and Physiology:
6. In the Practice of Medicine.

Notice. Every person offering himself for examination must give notice in writing to the clerk of the Society on or before the Monday previously to the day of examination, and must also at the same time deposit all the required testimonials at the office of the beadle, where attendance is given every day, except Sunday, from nine until two o'clock.

Candidates will be admitted to examination in the order in which their names stand on the notice paper; and those neglecting to attend agreeably to their notice, will, upon a subsequent application, be placed at the bottom of the list.

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* The book will be opened for the registration of those students whom these regulations affect, on the 1st of February, 1831.

† The students will be informed at each School, respectively, of the name of the teacher to whose care the register will be confided.

By the 22d section of the Act of Parliament no rejected candidate can be re-admitted to be examined until the expiration of six months from his former examination.

The Court meet in the Hall every Thursday, where candidates are required to attend at half-past four o'clock.

(By order of the Court,) JOHN WATSON, Secretary.

Apothecaries' Hall; Sept. 9, 1830.

The Act directs the following sums to be paid for certificates.

For London and within ten miles thereof, ten guineas.

For all other parts of England and Wales, six guineas.

Persons having paid the latter sum become entitled to practise in London, and within ten miles thereof, by paying four guineas in addition.

For an Assistant's certificate, two guineas.

For information relative to these Regulations, medical students are referred to Mr. Watson, who may be seen at his residence, 43, Berners street, between the hours of nine and ten o'clock every morning (Sunday excepted); and for information on all other subjects connected with the "Act for better regulating the Practice of Apothecaries," application is to be made to Mr. Edmund Bacot, clerk of the Society, who attends at the Hall every Tuesday and Thursday from one to three o'clock.

It is expressly ordered by the Court of Examiners, that no gratuity be received by any officer of the Court.

THEATRE OF ANATOMY, GREAT WINDMILL STREET.

The lectures at this Theatre on Anatomy, Physiology, and Surgical Pathology, commence, as usual, on the 1st of October, and will be delivered solely by Mr. MAYO. Demonstrations will be given daily in the dissecting room.

BIBLIOGRAPHICAL NOTICES.

Practical Remarks on the Nature and Effects of the expressed Oil of the Croton Tiglium, with Cases illustrative of its Efficacy in the Cure of various Diseases. By MICHAEL JOHN SHORT, M.D.—8vo. pp. 63. Longman, London, 1830. Plate.

DR. SHORT's object is to extend the now limited use of the croton oil to diseases in which it has not yet been generally administered, and by the communication of cases which have occurred to him in the course of a long experience of its nature and properties, in India as well as Europe, to raise its reputation in the opinion of the profession. Shortly after Dr. W. E. E. CONWELL, of the Madras service, re-introduced this medicine into European practice, it was highly thought of as a remedy. The adulterations to which it is usually subjected before it comes into the hands of the practitioner are now said to have rendered its use unfrequent in cases where the genuine oil would be very serviceable. An extract is given from a letter of Mr. FROST's, in which he alludes to some of the sophistications to which it has been subjected.

The quickness and certainty of the operation of the genuine croton oil as a purgative, induced Dr. Short to use it in many cases in which it was supposed to be contra-indicated. To remove the erroneous impression that it ought not to be given during inflammatory action, particularly of the primæ viæ or the digestive viscera, two cases of gastro-enteritis are mentioned in which it was administered by Prof. MONCHINI, of Rome, with success. One drop of the oil was mixed with an ounce of simple syrup, and taken at two doses, at half an hour's interval. In each its purgative effects were quick and active.

In a case of acute hepatitis of long duration, Dr. Short employed the croton oil with much advantage. The patient had "innumerable watery stools" after three doses of two drops each, and the operation of the medicine had even produced *deliquium animi.*" The acute form of the disease was thus cut short.

"Much," says Dr. S. "has been urged against the administration of a medicine so active in its operations, in the ordinary forms of disease: I can, however, fully testify to its perfect safety, and its utility in every case where a purgative was indicated, in infancy and adult age, either as a simple purgative, an hydrogogue, or where I desired to produce a sensible effect upon the system, and objected to venesection on account of the permanency of its effects." In corroboration of this opinion letters written by M. MAGENDIE, Dr. LE FORT, and Inspector TEGART, are referred to. The evidence of these gentlemen is strong in favor of the remedy, as an effectual and safe purgative. Dr. Le Fort thinks "it is possibly to be preferred to any other medicine in the greater part of diseases, where it is necessary to open the bowels." Mr. Tegart states that, in the East Indies, "it was found eminently useful as a purgative medicine, exciting the secretions, relaxing the skin, and acting on the whole system as a most efficient febrifuge:" he himself gave it with an "astonishing good effect."

An interesting case of tetanus occurred about three years ago in Mr. LAWRENCE's practice, in which the croton oil acted very copiously upon the bowels, after various other purgatives had been ineffectually given. Its antispasmodic effects were also very striking in this instance. The patient's recovery was attributed by Mr. L. to the regular exhibition of croton oil and opium. Dr. Short, reasoning from analogy, suggests the use of this remedy in hydrophobia. The hint appears to us well worthy of attention.

Various other cases are adduced by Dr. Short, which tend to prove that the remedy is valuable in many diseases, and that no apprehension need be entertained of the violence of its effects, if it be judiciously employed. He has also applied it externally with much advantage in gout, neuralgia of the facial nerves, &c. Employed in this manner, it produces inflammation and eruption on the part. We believe that the use of the croton oil as an *irritating* liniment originates with Dr. Short: it has often before been used externally to act as a purgative.* He says,

"I am, however, decidedly of opinion, from the experience I have had of its efficacy as a counter-irritant, that it is preferable to all of those now in use: superior to the cantharides in the quickness and certainty of its operation, and in the permanency of its effects; to the ointment of tartarized antimony, for the same reasons, as well as for not producing that excessive pain and constitutional irritation which usually attend the application of the last preparation; and to the common sinapisms, because it stimulates the skin much sooner, diffuses more warmth, and can be better regulated as to the extent of its effects. I have employed it in this way in cases of acute and chronic rheumatism, in gout, in tic douloureux, in glandular and other indolent swellings, and in all cases with the most satisfactory result.

"In cases of pulmonary affection, where it has been desirable to keep up a permanent irritation on the chest, I have found it to answer the purpose infinitely better than either the lyttæ or the tartarized antimony, producing neither the inconvenience nor uneasiness of the one or the other.

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* Dict. des Sc. Med. t. vii. p. 412.

"I am of opinion, also, that it is greatly superior to, and more beneficial in its effects than these medicines, from the nature of its operation; as it is pure pus which is secreted from the skin in consequence of its application, which secretion can be extended *ad libitum*, each pustule thus becoming, in some measure, a separate issue; whereas it is merely serum which is discharged when a blister is applied, and there is little discharge at all from the ointment.

"In cases where it is our object to put the system as speedily as possible under the influence of mercurial action, a combination of the oil with the Unguent. Hydrarg. seems to me to answer the purpose peculiarly well. The very stimulating nature of the oil excites the absorbents to extraordinary action; and it is incredible in how short a time the effects of the mercury is manifested from the use of this combination."

We have given the substance of Dr. Short's very interesting remarks upon the utility of this remedy without comment; for we confess that our own experience of it is too limited to justify us in offering any positive opinion upon the subject.

A Treatise on the Minute Anatomy of the Bones. By ANTONIO SCARPA, Professor of Clinical Surgery in the University of Pavia. Translated from the last Latin Edition.—36mo. pp. 70. London: Bulcock, Chelsea, 1830.

EVERY production from the veteran SCARPA's pen deserves attention. This little work is perhaps more physiologically curious than practically instructive, but still the student will not misspend an hour in perusing it. Scarpa is opposed to the generally received doctrine, which teaches us that the bones are composed of fibres, layers, or tables, placed upon, or so connected and joined with each other, as to have their strata intermingled; and that the strength of the bones depends on the size, number, and length of the layers. He affirms that the greatest part of the whole osseous system is reticular or cellulous. The controversy relative to the minute anatomy of the bones is not whether the structure of the greatest part of the bones is generally cellular or not, but whether the hard and almost rocky walls of the bones, and their compact external crust, no less than their internal substance, partake of this cellular texture. Scarpa has investigated this subject synthetically and analytically. He began by examining the bones in the first rudiments of animation; that is, when the cartilage first changes, and the earliest traces of the future bone begin to appear at the same time. He then deprived the hardest bones of an adult of their earthy particles, and reduced them to their original softness and pellucidness, thinking, as was proved by experiment, that, however entire the maturity of these bones might be, their minute structure would exhibit the same order and relation as was seen in the embryos. HALLER's experiments on the formation of bone in the incubated egg were repeated, and the results are here described. Some rather interesting remarks are also made respecting the various pathological conditions of bones.

MONTHLY LIST OF MEDICAL BOOKS.

A Treatise on the Venereal Diseases of the Eye. By WILLIAM LAWRENCE, F.R.S. &c. 8vo. pp. 337. Wilson, 1830.

A Short Tract on the Formation of Tumors, and the Peculiarities that are met with in the Structure of those that have become Cancerous; with their Mode of Treatment. By Sir EVERARD HOME, Bart. V.P.R.S. F.S.A. F.L.S. Serjeant Surgeon to the King, &c. 8vo. pp. 98. Plates. Longman, 1830.

A few Words on Quackery. By DEMOCRITUS, Junior. 8vo. pp. 23. Burgess and Hill, 1830.

Two Memoirs read before l'Academie Royale des Sciences, at Paris, on the successful Inhalation of diluted Chlorine, in the early Stages of Pulmonary Consumption, as a Remedy capable of prolonging Life, and of alleviating the distressing Symptoms in the more advanced Stages of that Complaint. With Cases, illustrating the Method of administering the Gas, and showing its beneficial Effects. Translated from the French of M. GANNAL, by WILLIAM HORATIO POTTER, M.R.I. Operative Chemist. 8vo. pp. 93. Callow and Wilson, 1830.

Practical Remarks on the Discrimination and successful Treatment of Spasmodic Stricture in the Colon, considered as an occasional Cause of habitual Confinement in the Bowels. Illustrated by Cases. By JOHN HOWSHIP, Surgeon to St. George's Infirmary, Teacher of Surgery, &c. 8vo. pp. 50. Burgess and Hill, London, 1830.

Anatomy of the Viscera, and Organs of Urine and Generation; arranged in three Tables. For the Use of Students. Burgess and Hill, 1830.

> These Tables are now completed, and we again recommend them to anatomical students as very cheap and correct references. Their utility has already commanded a very extensive sale, and we doubt not that they will become more popular the more widely they are distributed.

The Laws relating to the Medical Profession; with an Account of the Rise and Progress of its various Orders. By J. W. WILLCOCK, Esq. Barrister at Law. 8vo pp. 450. Clarke, 1830.

METEOROLOGICAL JOURNAL,

By Messrs. HARRIS and Co. Mathematical Instrument Makers, 50, High Holborn.

	Moon.	Rain gauge.	Thermom.			Barometer.		DeLuc's Hygrom.		Winds.		Atmospheric Variations.		
			9 a.m.	max.	min.	9 a.m.	10p.m.	9 a.m.	10p.m.	9 a.m.	10p.m.	9 a.m.	2 p.m.	10p.m.
Aug. 20			59	62	51	29.81	29.79	54	50	NW	N	Fine	Fine	Fine
21			56	63	50	.84	.82	48	49	NW	NW	Cloudy	Fine	Fine
22			55	66	60	.82	.86	50	55	NW	WNW	Fine	Fine	Sho'ry
23		.39	64	67	58	.83	.76	53	54	WSW	SW	——	——	Fine
24			65	66	55	.72	.71	54	56	WSW	SW	——	——	Sho'ry
25			57	69	57	.64	.57	56	55	SW	SW	——	——	Cloudy
26	☽		59	65	52	.67	.71	53	52	W	SW	Cloudy	——	Cloudy
27			56	62	54	.63	.32	52	53	SW	SSE	Fine	——	Rain
28			57	60	52	.25	.44	55	54	SW	SW	Rain	Sho'ry	Cloudy
29			55	63	49	.80	.94	53	55	W	W	Fine	Rain	Cloudy
30			55	62	52	30.04	30.06	54	52	WSW	W	Fine	Fine	Fine
31		.78	59	66	53	.11	.12	52	50	W	W	——	——	——
Sept. 1			57	67	53	.14	.12	49	50	W	W	——	——	——
2	○		59	67	55	.03	29.85	50	52	W	SW	——	——	Cloudy
3			63	66	55	29.68	.65	52	53	W	W	——	Cloudy	Fine
4			60	64	55	.78	.79	53	53	NW	NNW	——	Fine	——
5			58	63	58	.54	.46	52	52	WNW	SW	Rain	——	Cloudy
6			60	61	54	.37	.36	53	54	SW	W	Cloudy	Sho'ry	Cloudy
7		.40	60	62	54	.55	.70	55	57	NW	NW	——	Cloudy	Fine
8		.03	58	61	51	.84	.85	57	56	NNW	N	——	Fine	——
9	☾		58	59	53	.72	.60	55	58	N	WSW	——	Sho'ry	Rain
10			56	60	47	.50	.57	60	57	SW	WSW	Sho'ry	Fine	Fine
11			55	59	51	.62	.58	56	53	WSW	WSW	Fine	——	——
12		.51	57	57	49	.21	.27	55	55	S	SW	Sho'ry	Rain	——
13			57	62	52	.34	.26	55	54	W	WSW	Fine	Fine	——
14			55	59	50	.32	.38	52	52	W	SW	——	——	——
15			58	60	55	.49	.59	54	55	SW	SSW	Cloudy	——	Cloudy
16			60	60	51	.51	.62	56	56	WSW	SSW	Fine	——	Fine
17	●		55	57	53	.51	.48	56	57	SE	ESE	Rain	——	Foggy
18		.54	55	59	48	.44	.67	60	60	ESE	W	Fine	——	Fine
19			55	60	52	.81	.58	59	58	SW	SW	——	——	Sho'ry

The quantity of Rain fallen in August was 2 inches and 65.100ths.

Communications received from Dr. and Mr. D. GRIFFIN, Dr. BARRY, *&c.*

THE LONDON

Medical and Physical Journal.

Nº 381, VOL. LXIV.] NOVEMBER 1830. [Nº 53, *New Series.*

For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty, in Europe and America, were under deeper obligations than to the *Medical and Physical Journal of London*, now forming a long but invaluable series.—RUSH.

ORIGINAL PAPERS, AND CASES,

OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER AUTHENTIC SOURCES.

GIBRALTAR EPIDEMIC.

Remarks on the Gibraltar Epidemic. By DAVID BARRY, M.D. Physician to the Forces, &c.

To the Editor of the London Medical and Physical Journal.

SIR: The accompanying letter, as it now stands, addressed to Dr. JAMES JOHNSON, was originally intended to appear in his Journal, in reply to an article edited by him, in his last Fasciculus, and headed, "Review of the Facts and Arguments brought forward by Dr. Barry, at the Royal College of Physicians, relative to the late Epidemic Fever in the Fortress of Gibraltar; by HUGH FRASER, Esq. Surgeon to the Civil Hospital, and late Assistant Surgeon 12th Regiment:" but as the Doctor insisted on being allowed to break up my letter into the shape of a review, and as I was naturally anxious that, if forced into a controversy, my arguments (such as they are) should be brought into action, in close column, unmutilated and undiluted by my adversary, I have thrown myself on your mercy, and now beg a place in your valuable and impartial pages.

There is no assertion contained in my letter that is not supported by reference to original, authentic documents, and, therefore, even those of your readers who may not have had an opportunity of making themselves acquainted with Mr. Fraser's paper, will, I trust, find my observations worth their perusal, as tending to elucidate the history of the late Gibraltar epidemic.

I have the honour to be, sir,
Your most obedient and obliged servant,
D. BARRY, M.D.
Physician to the Forces.

Welbeck street; Sept. 25th, 1830.

Letter to Dr. JAMES JOHNSON, &c.

SIR: As you have not told us where Mr. Fraser's original paper may be referred to, I take it for granted that what you have given of it is merely a hash, sliced from the raw, unpublished material, and served up to your readers, "with a little of my own sauce," to give it an "*eclectic*" flavor. It is to be hoped, however, that Mr. F. will not suffer his lucubrations to remain in this mangled state, and that he will bring them out himself, ere long, in all their native richness. *En attendant*, I am glad to perceive that you appear to know your man. You seem to consider him as a sort of Perkins' steam gun, sent in advance of the main body, by the leaders of his party, to mow down all preliminary obstacles, by being made to pour forth an interminable stream of offensive missiles, whilst you, acting "*condenser*" to the machine, as you very facetiously designate yourself, intersperse the muddy torrent of abuse with occasional little puffs of thin, editorial vapor, "few and far between." But I am trifling with your reviewing dignity, and shall now proceed to business; first assuring you, that nothing, not even the proof afforded by your last fasciculus, that your pages may be sometimes made the vehicle of personal acrimony, shall induce me to descend to the use of that vulgar weapon.

1. Your friend Mr. F. begins where his conscience must have told him he would probably find it convenient to leave off, viz. by an apology. He commences the fight under cover of a rather *gauche* paulo-post-futurum-kind of *amende*, thus: "I shall be sorry if." Tell him it is well; but remind him, at the same time, that when my paper, which he has so furiously attacked, was read at the College of Physicians in London, he was in Gibraltar; that it is still in possession of the College, and still unpublished; that he, most certainly, has never seen it, and that, therefore, he must not pretend to know any thing whatever of its arguments, and only so much of its facts as may be collected from the little *volauvent, à la periscope*, which you were kind enough to toss up, at the time, from a memorandum given to you,

in an unlucky hour, by myself, and from memory. You now convert my simple facts into most learned postulates, (an honour for which I never designed them,) and in this form serve them up a second time. But "facts are stubborn things," as you and your protegé may find out hereafter.

2. Mr. Fraser tells you and your readers, that "before the arrival of Dr. Pym in the garrison, in November, even the word contagion had become nearly obsolete," &c. In reply to this, take the following letter, from the principal medical officer to his Excellency the Lieutenant Governor, through his military secretary. It is one of many similar documents of that period, still fortunately existing.

"*Gibraltar; 24th Sept.* 1828, 9 *o'clock. Immediate. No.* 869.

"Sir: Nothing has yet been done about the infected bedding at the naval hospital. Pray allow me to order it over the line wall at Camp bay instantly, as much loss of life may be the consequence. The barrack master's plan, of taking it direct to the sandpit, is fraught with danger. It should be steeped in the sea for sixty hours at least before it goes to any place, where it may be mixed with other beds.

(Signed) "J. HENNEN, M.D."

"To Lieutenant-Colonel Marshall, Military Secretary."

Can you, or your friend, quote any authority, living or dead, which affords stronger evidence of a full and perfect conviction of the reality of contagion, than the above? Pray compare this letter with those, by the same author, of the 29th August immediately preceding, since become the Alcoran of the unbelieving localist.

3. When Mr. F. shall have redeemed his promise of, "more of this hereafter," relatively to a paper, which he states I "drew up," shortly after my arrival in Gibraltar, to prove the noncontagious nature and local origin of the epidemic, I shall reply; not before. I dare him to the proof.

4. "The late epidemic (says Dr. Barry,) was a fever of one paroxysm." My words in the original paper were, "This disease, reduced to its most elementary form of expression, consisted of one, and only one, febrile paroxysm, terminating, from the second to the sixth day, either in a rapid and permanent return to health, or in the precursory, but apyrectic signs of speedy dissolution, black vomit, &c." Your friend pithily pronounces "the definition given," (and that without having seen or heard it,) to be "based in ignorance or error." In the next paragraph he gives his own definition, thus: "It was a fever of a

continued form, in which, in the cases of recovery, *the most perfect remissions took place.*" Now, sir, disdaining all attempts at sophism, of which I am accused, I would ask, Can a fever exhibit "the most perfect remissions," and, at the same time, be "of a continued form? If we do not attach a conventional meaning to words, they must cease to be intelligible symbols. Need I refer you to CULLEN's account of remittent fever? Need I say, that the word *paroxysm,* as used by that celebrated nosologist, comprehends the whole drama of fever, the three acts, cold, hot, sweating; and that a perfect *remission* is the apyrectic interval between two of these complete dramas; whilst *exacerbation* means only a higher colouring of the middle act, when, as in continued fever, this act is long enough to admit of its shades being observed. .Allow your friend to go on, and, depend upon it, he'll try to persuade you, that a figure of a circular form can exhibit the most perfect angles."

I shall not stoop to notice the intention to deceive, which your polished protegé appears capable of attaching to my definition, if it can be called one. He will not, surely, attribute this unworthy motive to his friend and colleague, Mr. PETER WILSON, in the view which he takes of the type of this fever, "as it prevailed in Gibraltar in the autumn of 1828," in his Historical Sketch, published in the Lancet, No. 354, vol. ii. p. 424. These are his words: "A fact resulting from my own experience in Gibraltar, namely, that the fever under consideration, which every year appears there, and which, in the autumn of 1828, assumed the character of an epidemic, is as much a continued fever as our home typhus is. *As it exhibits, therefore, none of these remissions,* nor, even at a low temperature, ever breaks off into ague, it can be assigned no closer affinity to the family of intermittents, than results from the circumstance of its remote exciting cause being a product of the earth, or, in other words, not an emanation from the living body." When it is recollected that Mr. P. Wilson was one of the medical officers of the civil hospital, where he resided during the whole of the epidemic; that he not only saw as many cases of the disease as Mr. F., but that he saw the very same cases; that he was the very originator and founder of the drain and privy pathology, and the Coryphæus of the non-contagion and local-origin sect, in Gibraltar; that, therefore, he is one of the last men in the world, who could be suspected of a wish to help me out of a scrape. When, I say, all these considerations are taken into account, his evidence must be deemed decisive of the nosological part of the controversy. Your friend's slip-slop descriptions, his "lulls," and "commencements of a primary or temporary morbid association," will probably induce you to part company from him on this point, and let him down *easy* in one of your next editorial parachutes. By the way, Mr. Wilson's clear, precise language on this subject will serve you for three or four very nice postulates.

5. Next comes a whole bundle of these things (postulates) which I am charged with having perpetrated, as to the cleanliness of the town of Gibraltar,* its municipal improvements, the comfortable condition of its poor, the moderate number of its population, &c. In order to beat down all these assertions at once, and to establish localism upon their ruins, Mr. F. gives, at full length, two official letters, [how did he procure the copies?] from Dr. Hennen to his Excellency the Lieutenant Governor. On these letters I shall merely observe that, when Dr. Hennen wrote them, he was chief medical officer of the quarantine department, for which, independently of his military pay, he received one pound sterling per diem; that the ship Dygden had been admitted to pratique, *with his sanction,* about three weeks before;† that a rumor had now gained considerable credit in the garrison, that she had introduced the fever, then breaking out; that it could not be pleasant to Dr. H. to have it believed that an enemy had entered the fortress through the very pass for the guarding of which he was so liberally paid. But an enemy had actually made his appearance in the very centre of the citadel: who could he be? from whence had he come? The two letters answer these two questions. The first letter christens the stranger by the mystifying, pompous name of "*bilious, autumnal, remittent fever,*" with the word "*yellow*" occasionally appended. This, as far as a name could go, was calculated to give him the air of a native scorpion. The second letter decides his birth and parentage, found in the drains and privies of district No. 24, by Mr. P. Wilson, who, to do him justice,

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* Dr. O'Halloran, in his interesting work on the Yellow Fever of the South and East Coasts of Spain, published in 1823, thus expresses himself, (p. 183,) "General Don, when he assumed the command of that station, improved its condition so much that Gibraltar, from its being one of the most filthy towns in Europe, is *now one of the cleanest any where to be seen.*"

† In the face of information from the Board of Health, and British consul of the province of Valencia, dated 22d July, "that this ship was infected with the yellow fever," and from the Spanish consul of Gibraltar, who stated officially, on the 25th July, "that a bad fever raged at the Havannah, by the latest accounts from that place."

never acknowledged the fitness of the name. This letter, as you perceive, was penned at nine o'clock P.M., when, from the exertions of the day, the heat of the season, the pressure of great responsibility, the reports that had been spread, &c., the author's mind might not have been in that cool, unruffled state which the gravity of the occasion demanded. Indeed, the letter carries with it internal evidence of the justice of this remark. Read the three measures recommended to his Excellency's especial attention, as the *only means* of preventing a repetition of the horrors of 1813 and 1814," viz.

1st. To sweep away certain sheds, lest they might become hot-houses of contagion.

2d. To appoint a committee to inspect these sheds and other unauthorised buildings.

3d. To order walking exercise for the police sergeants.

This mode of putting the case looks, I confess, rather ludicrous; but if you turn to the letter itself, you will find that I am fully borne out by its contents.

I shall reserve what further remarks I may have to make on these letters for a future occasion.

6. Surely your northern friend, Mr. Fraser, must be *daft*, or else there must be an error of the press, when he is made to say that " the board of commissioners, the majority, at least, came to the conclusion that there was not the slightest proof for referring the introduction of our epidemic to the ship Dygden, or to any other vessel." You shall soon see how the majority stood. There were *seven* members only on the Board. Mr. F. gives the opinions of *two* of these members, against importation, and in favor of local origin. To save space and time, you will, I presume, allow Dr. Pym and myself to be stanch importers. Of the three remaining opinions, you may judge for yourself: they are as follows:

COLONEL FALLA.

" I am of opinion that the late epidemic was not of local origin, but, from the strong presumptive evidence before the Board, that it was imported.

(Signed) " D. FALLA."

" *Gibraltar; 30th April,* 1829."

WILLIAM SWEETLAND, ESQ.

" After the most attentive consideration of the evidence which has been brought forward, I have discovered nothing which has carried conviction to my mind as to the cause or origin of the late epidemic fever. On the one hand, it has not been shown that any of the causes stated in support of the doctrine of its being of domestic origin, existed in a higher degree in the year 1828 than in many preceding years, when the garrison was free from that disease. On the other hand, no vessels arrived, during the last summer, having the yellow fever on board; nor has that disease discovered itself amongst any of the shipping in the port. In the absence, therefore, of any proof, on either side, I must decline hazarding any opinion on a subject which has baffled the researches of the most learned physicians of all countries, and continues to do so. (Signed)

"WILLIAM SWEETLAND."

"*Gibraltar; 30th April,* 1829."

DR. BROADFOOT.

"From every thing in my power to learn on the subject investigated by the Board, I cannot believe that the late epidemic originated here; but, on the contrary, I think it was imported.

(Signed) "ALEX. BROADFOOT."

Thus you perceive that, of the seven members, four "came to the conclusion" that the disease was imported; two, that it was not; whilst one declined coming to any conclusion. You will find out more clearly, by and by, with whom you have embarked your controversial fortunes.

Mother Fani's Affidavit. In order to comprehend this, you must refer to the proceedings of the Anglo-French commission, where you will find a declaration, signed by all its members, M. Chervin amongst the rest, dated February 1829, setting forth that this good lady showed such a palpable determination to mislead *(tromper)* the commission, that her evidence could not be admitted amongst their documents. Thanks to the liberality of the French government, these papers are now printed, and may, I hope, shortly be seen by the public. In these papers, and in the proceedings of the British Board of Commissioners, there is some curious evidence, tending to prove that the stink from drains and privies, on which you seem to lay so much stress, acted rather as a preventive against the fever, than as a cause of it, in Gibraltar in 1828.* By the way, I hope the College of Physicians will induce our government to print, *pro bono*, the documents connected with this epidemic. How it would abridge the badgering which I shall have to undergo from all the crazy endemic philosophers, who will now avail themselves of your "*condensing*" powers, which you are candid enough to confess you exercise, "for the good of Mr. Fraser and the public."

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* It is recorded by VITALBA, the historian of Spanish Epidemics, that, in the great plague of London, the physicians ordered all drains, privies, and other sources of stench to be opened, and fully exposed, for the purpose of checking the contagion. They attributed much success to this measure.

With regard to the nature of the disease of which the Fani children died,* you may consult the obituary register of the Roman catholic church of Gibraltar, in which the word *febre* is opposite each of their names; also a certificate of the same, signed by the vicar, and laid before the Board of British Commissioners; the evidence of the man who tied the legs of one of them together, and placed the body, yellow with livid spots, in its coffin; the evidence of the woman who saw the other vomit black, and who declared that the child told her she had been on board ship the Sunday before; *enfin*, the posthumous evidence of the Doctor, Braulio Lopez, who attended them in their last illness.† Is Mr. F. soft enough to imagine that the relict of two smugglers would confess to him and his *confrères*, but, above all, to Mr. Shea, the government lawyer, that her family ever had any illicit intercourse with ships in quarantine? Which do you think would be most likely to deal in complicated "made-up falsehoods, a boy not quite thirteen years of age, and a few washerwomen," or a hardened veteran smuggler? Such as the latter, however, (to use his own expression,) "is the front and bearing of one channel, on which Mr. F. rests his proofs."

As a judge of cases, do you not think that the case of *strangulated hernia* of old Fani is *well* made out? *pain in the throat*,‡ "*no vomiting*." The treatment, too: no attempt at taxis, no bleeding, no operation, though he had been seen by Mr. F. and others.

8. I have now arrived at the case of Mr. Fraser's servant-maid. Her name, he will recollect, was Maria, "a Portuguese; she had lived with him three years." There can be no doubt as to her identity. He says that this woman was attacked "on the *third* of August, 1828, by a fever, which he considered at the time, in common with Mr. Peter Wilson, late of this (the civil) hospital, to be one of those sporadical attacks of yellow fever, which every now and then appear there." Mark this well, I entreat you! Mr. F. *now* solemnly asserts that this woman was attacked by

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* The first cases of fever that occurred in Gibraltar in the autumn of 1828. "Yet, from the woman's own account (Mrs. Fani) little or no doubt can be entertained that it was *the fever*."—Wilson's Historical Sketch, *Lancet*, No. 352, p. 326.

† Extract: "Some days before Dr. Braulio Lopez got sick, I was informed by him that the two children of Felix Fennic, or Fani, named Salvador and Catalina Fennic, had died of the black vomit in district No. 24. The former died on the 17th August, the latter on the 20th of the same month.

(Signed) "JOHN CORTEZ, Surgeon."

"*Gibraltar; 30th January*, 1829.
"To Dr. Barry, Secretary to the Board, &c."

‡ See Pym on Pain in the Throat, as accompanying Bulam, p. 228 9.

yellow fever "on the *third:*" I say that she was attacked by this disease on the *twenty-third* of August. Let this disputed point be the touchstone of our respective claims to honest precision in facts and dates, and therefore to public confidence and respect. As to the "*obliquity*" with which he charges me on this subject, I shall fling it indignantly back upon him, with such overwhelming conviction of misstatement, on his part, that no ingenuity can ever extricate him from it. Should the dark spot which you allowed your protegé to attempt upon my probity be now fixed upon his own, he has himself to blame. But, after all, there is so much of vagueness, of the irritation of disappointment and party rancour about his whole paper, so much of the appearance of being pushed on by a coterie, that his *slight* anachronism, of *twenty days*, may be accounted for, without resorting to his own ungenerous imputation.

1*st Evidence.* The Commission of Origin and Cause, of which I had the honour of being a member, and secretary, aware of the great importance of *first cases* in the history of all epidemics, and anxious to obtain correct information as to the dates and circumstances of the earliest attacks of fever in 1828, resolved, at their first sitting in Gibraltar, on the 28th January, 1829, (4th resolution,) "That all medical practitioners within this garrison, civil as well as military, be officially called upon to furnish to the Board, by Friday next, a circumstantial return of the first case of disease which each of them may have treated, or which may have come to their knowledge, in this garrison, *last year*, and which they may have considered, then or since, *identical with the fever which has so lately prevailed here in an epidemic form.*" As it had been asserted by some, that sporadic cases of yellow fever appear annually in Gibraltar, care was taken to word this resolution so as to preclude all quibbling about the precise day when the disease assumed an epidemic form; and by taking in the whole of the year 1828, to prevent the possibility of having *a new first case* introduced, at any future period, under the pretext of its being looked upon as a sporadic, at the time.

A circular letter was immediately drawn up, containing the words of the resolution. It was dated that very day, signed by me, as secretary to the commission, and sent by an official messenger to every medical man in the garrison. The following is a true copy of Mr. Hugh Fraser's return to this circular.

Sir: In reply to your letter of the 28th instant, I beg to inform you, that the first case of the epidemic fever, which came under my observation, took place in a child of Mr. Martin's, residing in No. 24 district, on the *eighteenth* August, 1828. The history of this family is so generally known, that I deem it unnecessary to say more. Should the Board of commissioners require any further information from me, I shall be most happy to give it.

(Signed) "HUGH FRASER."

"*Civil Hospital; 30th January*, 1829.

"To Dr. Barry, secretary to the Board, &c."

This letter requires no comment when compared with Mr. F.'s present statement, "that his own servant-maid was attacked by yellow fever, on the *third* of August."

2d Evidence. The morning states drawn up by Mr. Tucker, then chief clerk in the principal medical officer's office, now deputy purveyor. Mr. Tucker then attended the civil hospital in a medical capacity, and knew this woman. He noted her, with Dr. Hennen, on the 2d of September, as convalescent from fever, with this remark, in his own handwriting: "Servant to Mr. Fraser, who has been ill more than a week; treated in his own house." She is again described in the morning state of the 3d of September: "Mr. Fraser's servant-woman." These two returns are the second and third of the kind made out that year: copies of both are now before me, authenticated by Mr. Tucker. Here I must beg to observe, that I have never met with more integrity, more correctness, nor more striking impartiality, than in this gentleman. To him is due, much of what has been left of accurate record, of that fatal scourge of 1828.

3d Evidence. The following will be found in Mr. P. Wilson's Historical Sketch, already quoted from the Lancet, No. 353, vol. ii. p. 388: "But a servant-maid of the surgeon of the hospital became, towards the close of August, affected with fever, when only the case of the 21st of August had been admitted, and though she lived in the division of the hospital most remote from the ward where that patient lay, and was never known to have gone near him, it was artfully attempted to hook in her case, to form a link in the chain of contagious influence."

I shall say nothing of the evidence of this woman's sister, who was employed in the hospital at the time, and in the age of whose infant this attack marked a monthly epoch; the girl's own declaration to those about her sick bed, "that she had caught the *plaga*," requesting her mistress not to come near her, &c.

Finding no account of this case in the books of the civil hospital, to which I had unlimited access, as principal medical officer of the garrison, during a part of 1829, I asked Mr. F. if he had taken notes of it? to which he replied, "not at the time, but he had since, from memory." Would he be kind enough to let me see them? "No: but (added he,) you had better take no notice of it."

Mr. Fraser may well say "that it is not in ignorance this case is brought forward:" but let him now gather the fruits of his unworthy aspersion; let him suffer the recoil of the foul missile which he aimed at me; let him emerge, if he can, from the inevitable conclusion that he either deceived the Board of Commissioners in 1829, or the public in 1830.

9. Mr. Fraser, all through his paper, evidently piques himself upon using strong language, and indeed (to give him his due,) it is sometimes so strong, that it covers his meaning with an impenetrable shield, from behind which, this literary Ajax fancies that he deals most murderous knocks. Can you guess what he means by "moral testimony being accepted to confirm the question of liability, or nonliability?" Confirming a question, I should say, means bothering an already doubtful point so effectually as to render it doubly questionable. This you will see hereafter is exactly what he intended.

The Board of Nonliability, which Mr. F., with his usual accuracy, says was composed of Drs. Chervin, Louis, Trousseau, Dr. Barry, and myself, besides some half dozen Spaniards," counted amongst its members, in addition to the above, Dr. Broadfoot, principal medical officer, Mr. Dow, acting deputy inspector of hospitals, Mr. Dix, staff surgeon, and Mr. Thurston, civil practitioner.

Mr. Fraser proposed that every indisposition, during an epidemic, should be taken as a case of the prevailing disease, and that "*moral evidence*" should be considered sufficient to decide upon the reality of any alleged case of double attack. These propositions were supported by Mr. Chervin, who had a long list of cases drawn up, on this plan. The Spanish physicians endeavoured to explain, *moral evidence*, to each other, by translating it into the word, *tradicion*. M. Louis, the president, though a very clear-headed man, could scarcely comprehend it, as applied to pathology. Mr. F., for the benefit of his British friends, illustrated the matter, something in this way: John comes before the Board, and states, or Mr. F. states for him, that his brother, James, who is supposed to be in South America, had been indisposed with headach, in Gibraltar, in October 1828, and that their mother, who is dead, had declared that both her sons had been also sick, in the autumn of 1813. Here is a case of second attack. Upon this sort of evidence being refused, not by *vivâ voce* vote, but by ballot, Messrs. Chervin and Fraser became *dissentient*; the other *nine members* signed the report. What is the College of Physicians about? Why does it not influence the Government to print this report, to which the high character of M. Louis, as a pathologist, and the importance of the question itself, give a value which few professional documents possess?

10. I am now quite sick of Mr. Fraser's endless postulates. "No hospital servant was taken ill at all for about one month after the commencement of the epidemic, *though in the closest attendance upon the sick.*" This is the very reason why they had not been attacked, previously to the introduction of John Holdroyd, of the 12th regiment, amongst them, on the 2d September. But, as one swallow makes no summer, let us say the epidemic commenced amongst the troops on the 4th September, which is one day before Mr. Fraser and his colleagues knew that any thing extraordinary had occurred to disturb the public health. They had not yet seen the cordon, nor received the printed bann issued, at two o'clock on the morning of the 5th September, by the Spanish physicians just returned to Algesiras, from Gibraltar. In this circular, they repeat to their British confrères of that garrison, the hints which had already been given to them, in vain, by the old women of the rock, viz. that they had the *vomito negro* amongst them.

I have now before me official returns signed by the surgeons of corps, proving that no less than fifty-nine hospital orderlies were seized with the epidemic between the 5th September and the 10th October; viz.

Royal Ordnance	12
12th regiment	7
23d regiment	3
42d regiment	9
43d Light Infantry	13
73d regiment*	1
94th regiment	14
	59

When we have learnt, in a manner that precludes all possibility of doubt, that these fifty-nine seizures far exceed the whole of the attacked, during the period mentioned, amidst a civil population, of more than two thousand, inhabiting the south district, where the military hospitals were all placed, and where the first civil case occurred, on the 5th September, in the person of Acres, the brother of Holdroyd's reputed wife;* that there were only 164 soldier-orderlies employed about the military sick, from the beginning to the end of the epidemic, and perhaps not half that number at any given time; how shall we account for this immense disproportion of attacks between the civil and military, in the first month, without leaning a *leetle* to contagion? I forgot to say, that not one word of these *postulates,* about the military orderlies, belongs to Mr. F.: the whole has been put into his *cat's paw,* to pluck my explanation out of the fire: you will allow, I think, that he has burnt his fingers.

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* This regiment had its hospital on Windmill hill.

I have some hopes of bringing *you* round to the true faith; but as to your friend, I despair of bringing him even to reason. He has plunged into the arena, or rather has been let loose into it, with such blind and reckless fury, that there is no managing him. He puts one in mind of a fierce Andalusian bull, just rushing into light, from his narrow stall, butting even at his own shadow. "Cornu qui jam petit, et pedibus qui spargit arenam."

11. Thank my stars! I am now arrived near the conclusion: I have reached Mr. F.'s very becoming remarks on the treatment of the disease, and the comparative success of the different medical people then in the garrison. But the idea of bulls having crossed my imagination, I cannot resist the opportunity of noticing one of the many pasquinades, to which the epidemic gave rise, and which were privately circulated, in Gibraltar, during my residence there. It was in the Spanish language, and, in my opinion, afforded evidence that all the wit of Spain was not buried with Cervantes. This pasquinade was in the shape of a handbill, announcing a grand bull-fight, in the "*Plaça de Toros* of Gibraltar, by permission of His Excellency the Governor, &c." It set forth that several first-rate bulls, of the true *black breed* called "la Epidemia," would be killed by the most celebrated *matadors.*† The cattle were said to have been brought in by the well-known herdsman.—The medical men of the garrison were designated as the bull-fighters, each having a *nom de guerre,* or Spanish *sobriquet,* indicative

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* This young man, a day labourer, lodged with his sister and her pretended husband, in district No. 24. Finding himself ill, about the beginning of September, he went to his mother's in the south, who, with a Portuguese family, occupied a cottage close to, or under the bridge of the naval hospital. Here he remained concealed for two or three days, but was discovered on the 5th, and sent to the civil hospital. The whole of the Portuguese family were successively taken ill, some days after. These were the first civil cases in the south. (Vide the documents of the Anglo-French commission, and of the British commission.

† *Matador:* he who despatches the bull, with a sword, after the animal has been sufficiently tortured.

of some prominent peculiarity of character, or conduct. Some of these were highly amusing, and did honour to the native wit of the remote Calpe. I cannot now recollect who appeared, in colossal characters, as *first,* and *second matadors, first,* and *second spadas,** *picadors, banderillas,* &c.; but, I dare say, some of Mr. F.'s friends, who understand Spanish, have shown him this little *jeu d'esprit,* and explained its allusions.

Now, as to my humble share in this exhibition. I arrived in the bay of Gibraltar on the 8th November, landed on the 10th, observed the general localities of the place, saw and conversed with most of the civil practitioners, made myself acquainted with the different modes of practice, civil as well as military, and their results; on the 14th, I addressed a letter to the principal medical officer, of which the following is an extract.

"Let me entreat you to press upon His Excellency, when you see him this day, the crying necessity of adopting, without the loss of a single hour, such measures as will prevent any more sick from being sent to the naval hospital. The accumulation of infectious* disease there, has been, in my mind, the leading cause of the great excess of the proportion of military, over civil deaths. You can execute no plan in so short a time, that will so effectually, and so rapidly check the frightful mortality of the troops, and at the same time, so largely increase the confidence of the garrison in yourself. Give me the authority, and the thing shall be done this day. (Signed)

"D. BARRY, M.D.*
Physician to the Forces."

"To Dr. Broadfoot, P.M.O."

* I use the word infectious, as synonymous with contagious.

His Excellency granted the desired authority, without a moment's delay, and that very evening, the 12th, 42d, and 43d regiments began to send their fresh cases to some sheds close to the neutral ground, on which they were then encamped. From that day to the close of the epidemic, not a man was sent by any of these corps, to the naval hospital. The sheds-hospital was placed under my immediate superintendence.

The annexed is a brief statement of the admissions, recoveries, and deaths in this little establishment, together with a general outline of the treatment pursued, from its formation on the 14th November, to the 14th December following, taken from official returns, now in my possession, drawn up at the time, and signed by the medical officers in charge of the respective corps.

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* *Spada,* or swordsman; *Picador,* lanceman; *Banderilla,* tormentor or flagbearer.

	Admitted.	Convalescent.	Died.
12th regiment........	22	18	4
42d regiment	11	8	1
43d Light Infantry	23	17	4
Sappers	2	2	0
Totals	58	45	9

At the close of the returns, four were not yet considered convalescent. Seven only are returned, whose convalescence was delayed beyond the seventh day from the attack.

Of the nine deaths, there are only two so late as the sixth day of the disease.

Of the fifty-eight admitted during the month, eleven had mercury administered to them, either before their admission, or after, and without my approbation. Of these eleven, five died. Twenty-eight were bled from the arm, and two from the temporal artery; in no case to more than sixteen ounces. Of the thirty thus treated, three died: in one of these three, there was profuse hemorrhage from the temporal artery in the night. This practice may not have been quite so vigorous as that of Mr. F. and his supporters; but I have the satisfaction of reflecting, that the loss of life fell very far short of fifty-three and a half per cent. upon the whole of the sick admitted.

12. With regard to the knowledge of the epidemic, be it great or small, which I may have acquired at Gibraltar, those who knew me there will, I believe, allow, that no man worked harder to make himself acquainted with its characters and its history than I did, during a residence of fourteen months. The documents of the three commissions, of which I had the honour of being a member, will, I trust, bear me out in this assertion. But it is evident that Mr. F. and those who have furnished him with the dignified observations (for they are not his own,) which he makes in this portion of his paper, are determined to establish, *per fas, aut nefas,* a monopoly for themselves in this disease, more particularly in its anatomical characters. I shall not deny that their post-mortem facilities were most abundant; much more so than those of their colleagues. So jealous, indeed, are they on this latter head, that they will not allow me the melancholy honour of having been in at more than "eight or ten deaths." But even this is more than I can claim, having declined to participate in the treatment of two of the fatal cases. Pray remind these gentlemen, in your usual classic manner, that the pompous, but empty Mussulman, who has plunged his ruthless mat-

tock oftenest, and deepest, into the debris of the Parthenon, in the destruction of which he has anticipated the scythe of time, is not to be considered on that account the only judge of what had been its architectural, and sculptured ornaments; that he who daily delves in the quarry, or the mine, is not always the most enlightened geologist. As to myself, I was placed, on my arrival, as you have seen, in charge of the sick of three, out of the seven regiments, of which the garrison consisted. I witnessed autopsies, at the civil hospital, with Dr. Pym and others; at the military hospital, with my colleagues of the Anglo-French commission. At my own hospital I missed none, and all the fatal cases were opened there. I took notes on the spot, of the living and the dead. I examined registers of dissections, where they had been kept. During the last eight months of my residence on the rock, not a single fatal case occurred, either in the civil, or military hospitals which I did not see examined after death, and of which I did not take notes, at the time. But why descend to talk of these matters? A few cases, diligently observed, and carefully noted at the moment, are worth a cartload of confused recollections, however mysteriously puffed off as the fruits of exclusive research. So much for your friend's defiance of "contradiction" to his borrowed slander.

§ 13. Knowing that you are fond of postulates and other "*sesquipidalia,*" I shall give you two or three on the subject of mercury, as a naval and military medicine.

1st. It should never be given, in either service, when the disease can be cured without it, because it renders the constitution, once seriously affected by it, much less capable than it had been of resisting the influence of cold and wet for years after, and therefore often leads to the invaliding, if not the death, of many an able seaman and good soldier.

2d. There was not even one case, in the whole of the late epidemic of Gibraltar, which recovered under the use of mercury, that would not have recovered more quickly, more comfortably to the patient, and much more profitably to the service, without a single grain of it.

3d. Almost the only cases of tedious convalescence we had at Gibraltar, and I saw the whole of them with Dr. Pym, were men who had used mercury in large quantities. The fever itself hardly ever, I might say never, left organic disease behind it.

Thanks to our director general, he has done much to discourage the unnecessary exhibition of this drug, in those

those diseases to which young soldiers are particularly liable.

14. The motives which induced me, in consultation with my colleagues of the sheds hospital, first to limit the use of this mineral to its mildest combinations with a vegetable aperient, and afterwards to suspend its administration in toto, were of the most irresistible kind. Such motives had, perhaps, never occurred before, and probably never will again; but as your forlorn hope is *hors de combat,* I shall reserve my fire for the main body.

Should you think that any of your friend's assertions still rest upon even the semblance of defensible ground, be kind enough to let me know. You shall have facts and documents until you cry "Hold, enough!" In the mean time, presuming that your engine must halt to take in a fresh supply of fuel,

I remain, sir, your obedient servant,
D. BARRY, M.D.
Physician to the Forces.

P.S. By way of a set-off against your friend's poetical flourish about "the thousand sick of some fever on board the Havannah ship, who all died without proving any thing," (which I forgot to notice sooner,) you shall have my official opinion on the subjects of local origin and importation of the Gibraltar fever, as it stands attached to the proceedings of the Board of Commissioners.

DR. BARRY.

"I am of opinion that the fever which prevailed in an epidemic form in this town and territory, last autumn, was not of local origin, but that it was imported. I have been induced to form the above opinion from the following reasons:

"1st. Because I consider that it has been satisfactorily proved to the Board that this fever is identical with the yellow fever, or black-vomit fever of the West Indies, with the epidemic fever which, at different periods within the last thirty years, has committed such ravages in this garrison, and in other parts of the south of Spain: that it is essentially different from every fever indigenous in any part of Europe, in its mode of attack, its symptoms, its duration, its anatomical characters, and, above all, in its affecting the same individual but once during life.

"2dly. Because I conceive that, after the most minute examination of all the medical and other evidence which could be procured, it has not been satisfactorily shown to the Board that even one case of fever has occurred here, within the thirteen years immediately preceding 1828, identical with the late epidemic fever, excepting four which occurred in the year 1817, in the persons of lightermen and Jews, who had been in the habit of having intercourse with West India ships; although it is presumable that, during that period, all the physical causes inherent in this territory, and capable of generating disease, had been in full action, and although the population was more dense and the houses less commodious during these years than in 1828, as stated to the Board by the best informed and most respectable evidences.

" 3dly. Because I conceive that there is no evidence before the Board to show that there is any source of malaria within this territory, and because I conceive that it has been fully proved to the Board that the effluvia arising from drains, even when they have been most offensive, had no share in producing the late epidemic.

" I am of opinion that the late epidemic disease was imported, and afterwards propagated here.

" 1st. Because I conceive that there is ample evidence before the Board to prove that this disease is capable of being propagated either by direct communication, or by means of the clothes of persons who had been affected by it.

" 2dly. Because I consider it proved to the Board, by the clearest evidence, oral as well as documentary, that several of the ships which arrived here last summer and autumn, from yellow-fever countries, had suffered much from sickness and deaths on their passage; amongst others, the Swedish ship Dygden: that four or five of this ship's crew died in the Havannah, and two on her passage here, of yellow fever; nine having been sick during the passage; that the mate of the ship was ill about the 24th July, whilst in quarantine, and was not reported to the inspector of health; that, on the 7th August, the day after the ship had been admitted to pratique, one of her crew was received into the civil hospital here, as a case of 'intermittent fever from the Havannah;' that one of the men shipped on board this vessel here, to assist in navigating her to Cadiz, was taken ill a few days after having gone on board of her, and continued so for five or six days; that mattresses and other effects were thrown overboard from this ship whilst she lay in quarantine here and in Cadiz; that the clothes of the men that died on board this ship were sold to sailors who landed from her, about the 6th August last; that the sister of a sailor who landed from this ship, and who had had the black-vomit fever in the Havannah, immediately before he embarked from that place for Gibraltar, received a bag of clothes belonging to that sailor, and fell sick on the 20th August; that the health guard, Francis Teste, who was placed on board this ship on the 27th July, declared to several persons that she brought the yellow fever to this garrison; that the sister of this health guard, who, on the 11th August, assisted to wash his clothes which he brought from on board this ship, fell sick, according to his own declaration to the Board, on the 21st August; that the very first persons who were attacked by the late epidemic were connexions of sailors and health guards, young persons who had been recently on board ship, and washerwomen.

"3dly. Because, at the moment that the sailors of the Dygden landed here with the clothes of the men who had died on board her of yellow fever, all the collateral circumstances favorable to the propagation of disease were present, viz. the sultry calm of a southern autumn; the peculiarly sheltered and unagitated state of the atmosphere of Gibraltar; the steady, high range of the thermometer; the abundance of subjects fitted, from their age and freshness, to receive the contagion, and from their never having undergone the protecting influence of a former attack of this singular and dreadful malady; and, lastly, because the ship Dygden was admitted to pratique on the 6th August, and because the very first case of the epidemic occurred on the 12th of the same month.

(Signed) "D. BARRY, M.D.
Secretary to the Board."

"*Gibraltar; April* 30, 1829."

FUNCTIONAL DISORDERS OF THE SPINAL CORD.

Observations on Functional Disorders of the Spinal Cord, and their Connexion with Hysterical, Nervous, and other Diseases; illustrated by Cases, selected chiefly from the Reports of the Pallas-Kenry and Currah Dispensaries. By WM. GRIFFIN, M.D. and D. GRIFFIN, Esq. M.R.C.S. Limerick.

(Continued from vol. liii. p. 389.)

AFFECTIONS of the stomach, as sickness, vomiting, pain, &c. dependent on irritation at the origin of the eighth pair, are exceedingly common; and it is of the greatest importance in practice to have them fully understood. Notwithstanding the particular investigations of many eminent physiologists, our knowledge of the functions of these nerves is still so very uncertain, that our opinions on the subject must be formed principally by the consideration of such pathological facts as come within our experience. Cases have been already related in which nausea and vomiting were constant and uncontrollable symptoms, coexistent with tenderness of the cervical spine, and whose whole progress could leave little rational doubt as to their dependence: but we shall presently offer others of a still less disputable character, and which must at the least prove that the pneumogastric is a nerve of peculiar, if not of common sensation. The supposition that it does possess even common sensation seems to be supported by the strongest probabilities, although in a late publication, of which we have before spoken, an opposite opinion is maintained.* As the experiments put forward in proof of that opinion appear at a cursory glance very conclusive, it is necessary to show that others, equally satisfactory, favor our own conjecture, before offering any reason suggested merely by the observable phenomena of disease.

With regard to its being a motor nerve, "the analogy," it is observed in the work alluded to, "between the portio dura of the seventh and the pneumogastric, is so striking as to excite the strongest suspicions that their functions or properties are similar: they both arise by a single series of fibrils from a distinct portion of the spinal marrow, and not by double origins, or distinct roots from the two great spinal columns, like the fifth pair and spinal nerves."

Now it would appear to us, that the analogy between the fifth and eighth is infinitely more striking; the former supplying or becoming accessory to the sensations of the organs of the intellect and of the peculiar senses; the latter of the organs of respiration and digestion: and in this view these two nerves certainly become the most important and interesting of any in the whole frame. There would seem to be some error in the anatomical statement of the origin of the pneumogastric, as a small ganglia, the sign of its connexion with the posterior column, is formed both on the glosso-pharyngeal and itself; and hence MAGENDIE, BELL, MAYO, and WILSON PHILIP, all unhesitatingly assert that they possess sensibility. It is to be remembered also that the muscular fibres of the stomach cannot be excited by irritating the eighth pair, in the way a muscle of voluntary motion may, and that, as Magendie has shown, even the gizzards of birds will not contract by such irritation; a fact totally discordant with the supposed analogy between it and the seventh: and it fails yet further in its being apparently superfluous as a mere motor nerve, since the motions of the stomach and intestines are quite independent of it. This is not at all the case with the seventh and the parts it supplies, nor even with that portion of the eighth which is acknowledged on all hands to possess a motor power; those branches which supply the dilators of the glottis, and preside over the alternate contraction and relaxation of the lower third of the œsophagus.

It may be inquired if the eighth pair be simply motor nerves what supplies the stomach with sensation when the spinal nerves are palsied and insensible. In the case of Palmer, related by Mr. C. BELL, the abdominal muscles hung loose and inactive, and the skin senseless, in consequence of disease of the cervical vertebræ, but the stomach retained its sensibility; it is fair, he says, to conclude through the influence of the par vagum.

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* "Nothing further, I presume, need be said to prove that the pneumogastric is not a nerve of sensation, and consequently that it cannot be the seat of pain."
TEALE *on Neuralgic Diseases.*

Again, if there is any fact in pathology at all clear, we think it is that irritation may be propagated by this nerve, from its capillary extremities to its origin in the brain, and it appears as impossible to us that a mere motor nerve should transmit this irritation, as that it should impart to us the consciousness or intelligence of its own actions. This it is not easy to conceive it does, as it seems impossible for two qualities or powers, however subtle, to traverse the same medium at the same moment in opposite currents; a volition passing out and a sensation returning.

But there are many more positive reasons for our attributing to it at least a peculiar sensibility. Dr. Wilson Philip, whose inquiries have been so specially directed to its uses, and who has given the subject a rare attention, believes that the peculiar sensation obliging respiration belongs to it. "The part of the brain," he observes, "to which impressions from the lungs are conveyed is evidently that, where the eighth pair of nerves which supplies them originates, and from which the spinal marrow proceeds. These nerves are nowise connected with the muscles of respiration, they only convey the sensations excited in the lungs; yet it appears from the experiments in which M. Le Gallois removed the brain by slices, that respiration continued until he removed this part of it, and then instantly ceased. In these experiments the power of the muscles of respiration, and the nervous power which excites them, still remain, as may be easily ascertained by stimulants properly applied to the spinal marrow. It is the sensation which excites to inspire, that is, the influence of the sensorial power which is withdrawn." In full accordance with this, we may mention Magendie's statement, that the action of the posterior portion of the fourth ventricle is in strict harmony with that of the eighth pair; his suggestion that appearances of disease may be found there in asthmatic cases; and our own frequent experience of oppressions connected with tenderness at the upper cervical vertebræ. It would seem equally probable that the peculiar sensations of the stomach depend on this nerve. Nausea and attempts at vomiting may occur after division of the eighth pair, and even after excision of the stomach, because the sensations reside in the posterior portion of the fourth ventricle; but if this was disorganised, no such sensations, we believe, could be experienced. Magendie has shown that vomiting from an emetic may be repressed by compressing the fourth ventricle at the origin of the par vagum; and we shall find many cases in which uncontrollable sickness and retching was at once allayed by applying a blister to the upper cervical vertebræ. Instances of spasm of stomach terminating fatally are met with, in which, on examination, no diseased appearances could be detected, except at the base of the brain; and we may further refer to the frequent occurrence of a total disrelish of food, or of greedy hunger, in certain cerebral affections.

Desmoulin and Magendie, in their late work, after detailing numerous experiments illustrative of some of the uses of this nerve, conclude that it most probably serves to establish intimate relations between the stomach and the brain, to transmit impressions giving notice whether any noxious substance has entered, and whether it is capable of being digested.

It only remains to make a few observations on Mr. Broughton's experiments, which, however apparently absolute, by no means seem so on examination. In the first place, the principle can scarcely be universally admitted that, on pricking a sensitive nerve, the animal must necessarily complain of pain: in fact, in the very experiments quoted, in which the par vagum was pierced by a pin, pinched, and slowly cut through with a scissors, pain should have been experienced, at all events, at the larynx, pharynx, and œsophagus; as all our best physiologists seem to agree that the fibrils of that nerve distributed to these parts at all events are sensitive, as well as motory. It should have been considered, too, that the sympathetic, to establish whose sensibility this property is denied to the par vagum, is itself totally devoid of sensation, and may be cut and mangled and removed to an incalculable extent, as Magendie asserts, not only without pain, but without manifest disorder of any kind.

It should be still further considered that, although pain may be occasioned by pinching or injuring a nerve of common sensation, the instrument of a peculiar sense cannot be called into action by any but its own appropriate irritation. Pinching the origin of the optic or olfactory nerve could never occasion vision or hearing; the pneumogastric may be a nerve, therefore, of a peculiar, if not of a common sensibility.

But when we reflect on all that has been said, its strong analogy with the fifth, which is a motor nerve to one set of organs, a nerve of common sensation to another, and a nerve of peculiar sensation to a third; when we reflect that pain of stomach is a still more common attendant on cerebral disease than hunger or nausea; that it is met with in nearly all cases of cervical tenderness, and that the gastric soreness in typhus is almost invariably accompanied by a similar symptom; it will not be thought too much to infer a strong probability that this nerve possesses even common sensation.

We now proceed to show that these several affections, sickness and vomiting, hunger and loss of appetite, pain or tenderness of stomach, which are generally, both in practice and in the schools, attributed to some diseased or disordered state of the organ itself are very frequently dependent on disturbance at the origin of the par vagum, and always in those instances indicated by tenderness at the cervical portion of the spine.

We shall first relate a case proving the dependence of vomiting on injury of the cervical spine, although very unsatisfactory with respect to any inference deducible from the treatment.

XXXIII. Michael Guerin, aged sixteen years, was struck with a hurly on the back of the neck, about the situation of the fourth cervical vertebra. The blow was so violent that it brought him to the ground. He was removed to bed, and was soon after seized with vomiting: he complained of *tenderness of stomach*, had a hard, quick, irregular pulse, with whiteness of tongue and thirst, but no pain. There was no mark where the hurly had struck him, though the part was sore to the touch. He was bled and purged, and the neck repeatedly blistered within a few days; he had effervescent draughts, opiates, and other remedies, and all with very little relief to the symptoms, except that the thirst and feverishness subsided, and the pulse became somewhat softer and slower. A degree of subsultus tendinum, which had shown itself on the second or third day after the accident, was also diminishing, and eventually wore away. He now lay in the bed with a cool skin, a natural countenance, the tongue almost clear, and the spirits undepressed; yet he was unable to retain the smallest particle of food or drink for one moment on his stomach. After four or five weeks passed in this manner, during which nothing seemed so remarkable as the little emaciation or debility induced, notwithstanding the continual rejection of the food, a gradual improvement took place, and the stomach eventually became tranquil, and recovered its tone.

There appeared to be little or no nausea in the foregoing case, and the food was ejected without force or distress, as in one or two instances mentioned by Dr. **Brown**: this is, however unusual, and chiefly observable in protracted attacks. The following instance may serve to illustrate this; but it will be found chiefly interesting from the resemblance it bears to a severe inflammatory attack, and the obvious correctness of the diagnosis furnished by the spinal tenderness.

XXXIV. A lady, aged fifty-six, was seized with violent pain in the pit of the stomach and right side, attended with excessive soreness along the margin of the lower ribs back to the spine: there was constant distressing nausea and vomiting, heat of skin and thirst, quickness of pulse, and furred tongue; the pain came on at intervals with increased violence, like paroxysms of colic; and, after some hours, the tenderness of stomach and side became so acute that the weight of the bedclothes could scarce be borne. In detailing all the symptoms with which she was affected, and speaking of her headach, she happened to mention that she felt a stiffness of the muscles of her jaws, as if she was about to be attacked with locked jaw. This immediately suggested an examination of the spine; and extreme tenderness of the lower cervical vertebræ, of all the dorsal from the fourth downwards, and of the superior lumbar, was discovered, although she did not herself previously suspect its existence. There is, perhaps, generally no objection to the abstraction of a small quantity of blood in these severe cases; even in the belief, as in this attack, that they are not inflammatory; but from the general feebleness of the lady's constitution, it was deemed unnecessary. The vomiting, which had continued for two days previous to her sending for assistance, and resisted other usual remedies, was relieved by a blister to the stomach, where it was applied rather than to the nape of the neck, at the anxious desire of the patient. Irritation at the trunk of a nerve is sometimes unaccountably relieved by blistering the minute extremities, as Mr. **Brodie** has shown in the occasional benefit derived from blistering the knee in affections of the hip-joint, and, as it is frequently successful in allaying irritability of stomach, from whatever cause it arises, when directly applied, it was not thought necessary, in opposition to the lady's wishes, to make the application now to an unusual place, where the advantage could be considered only as conjectural. Her recovery, which was frequently interrupted by a recurrence of the vomiting, though not to so great a degree, proved very slow, and was effected chiefly by the use of continued mild purgatives, with anodynes, and a strict attention to diet.

In some weeks after her apparent recovery, however, the vomiting returned, with its concomitant, the tenderness of the cervical vertebræ, but without any serious illness or distressing symptoms. It was invariably brought on by taking food; but there was now no nausea and no feeling of distress, the contents of the stomach were simply rejected. She eventually gave up eating breakfast altogether, and confined herself to one meal a day (her dinner), which, however, she never retained long. After several weeks had been passed in this way, it was singular to observe, as in the case of the boy, how little there seemed to be of debility or emaciation; there was scarcely any change in the lady's appearance. As she had similar attacks before, at different periods of her life, with long intervals of tolerable health, it seemed fair to infer that the present was not connected with organic disease. Attention to the general health, and to the cervical portion of the spine, were therefore recommended. Whether this was observed, or how much longer the affection lasted, we have not learned.

The beneficial effect of applications to the cervical portions of the spine, in allaying nausea and vomiting, which were in the foregoing case only conjectured, we had afterwards many opportunities of witnessing in the more complex instances of spinal irritation. The following seems particularly illustrative, although not exactly of that class.

XXXV. In an accidental visit to the House of Industry, a patient was pointed out, who had not kept any thing on her stomach for five months: she was a young girl, about twenty-five years of age, and was pale, weak, and greatly emaciated; she was constantly confined to bed; the catamenia was suppressed for seven months; she had taken much medicine without any benefit. On examination there was found extreme tenderness of the second, third, and fourth cervical vertebræ; the slightest touch making her shrink and gather her features; there was no soreness or hardness in the hepatic or gastric regions, but the abdomen was much sunk, as is usual where there is general wasting. From the appearance of the patient, little was expected from any remedy, except perhaps some alleviation of suffering; and, as the vomiting was one of the most distressing symptoms, a blister was ordered to be applied to the tender cervical vertebræ. In a few days afterwards we learnt that, as soon as the blister had risen well, the vomiting immediately ceased, and did not seem inclined to recur. Directions were, however, given to repeat the application, which was accordingly done, and, after the lapse of several days more, there was no return of the complaint: she was perfectly free from vomiting, and entertained hopes of recovery.

We had no opportunity of witnessing the progress of this case, but heard that in some time she grew very ill again, and at last died. There was no inspection of the body. It was a singular circumstance that her bowels had been for a long period very costive, so as scarcely to be moved by any medicine; but after the application of the blister, they became perfectly free, and even evinced a disposition to diarrhœa.

XXXVI. A young lady, fair, and of delicate make, felt a gradual and uncontroulable langour gaining upon her, attended by frequent headach and loss of appetite. After continuing in this state for some weeks, she was attacked with sickness of stomach and violent ineffectual efforts at vomiting, brought on by the slightest twisting or bending of the frame, or raising herself to the erect position. It was accompanied by swimming of the head and giddiness, with distressing headach, and followed by frequent fits of syncope, or insensibility, in which she used to remain for one or two hours, pale, cold, and apparently lifeless. She was sometimes affected with palpitations and great sense of sinking, with pain in the stomach and sides, especially the right, and extreme coldness of the feet; she had no appetite; the pulse was eighty; the skin cooler than natural; the tongue clean. The pain, sickness of stomach, and retching, were considerably relieved as long as she remained in the horizontal position, but the slightest motion of the trunk occasioned their instant recurrence, so that, when making the bed, it was found necessary to remove her in a recumbent position. She constantly complained of inexpressible languor. There was acute tenderness at the first and second cervical vertebræ, and it existed in a less degree in all the dorsal.

She was for some days treated by saline draughts, opiates, antispasmodics, and mild purgatives, but with little apparent benefit: the headach, giddiness, retching, and fits of insensibility, still continuing to recur on the slightest movement. A blister to the neck was then ordered, and there was immediate relief to all the symptoms: even the pain in the sides abated, and warmth returned to the skin. We could not learn that there had been any suppression or interruption of the catamenia; but they occurred on the next night, and the young lady was up and well in a few days.

(To be continued.)

PUERPERAL FEVERS.

Observations on the Puerperal Fevers which occurred at the Maternité of Paris in 1829 *; on the various Modes of Treatment that were adopted, and particularly on Mercurials, Emetics, and Bloodletting.* By M. TONNELLE.*

(Continued from our October Number, p. 314.)

Treatment of Puerperal Fevers. IT must be evident that no exclusive treatment can be laid down for a disease which assumes so many different forms: and still, if we refer to writers, we find that most of them have a particular mode of practice, which they consider the only one that ought to be employed. Some adopt general, while others trust to local bleeding. By some the employment of mercury is advised, and by others it is entirely proscribed. Emetics and purgatives are also warmly recommended by one party, and as strongly opposed by another. These opposite and exclusive opinions are founded upon some narrow systematic idea, which is maintained in one day, and forgotten the next. An exclusive method of treatment is supported upon a few insulated facts. Certain therapeutic means, the utility of which depended upon a particular form or stage of the disease, or upon certain seasons or conditions of the atmosphere, are thought to be generally applicable. The remedy is highly praised, and put to the test of further trial; but, as the circumstances which originally rendered it successful are no longer present, it of course fails, and it is given up as precipitately as it was at first adopted. Ipecacuanha may be adduced as an example; and many other remedies, after having been in much repute for a certain time, are deprecated, because they have been misapplied, and hence are undeservedly neglected. M. DESORMEAUX has taken a wider and more philosophic view of the treatment of puerperal fevers. The various modes of practice about to be described were not considered by him to possess a fixed and absolute value. Their utility is relative and subordinate to the different forms of the disease, and to the different conditions of the atmosphere which sensibly influence the malady. All we can do, in the present state of our knowledge, is to record the remedies that have succeeded at one period in certain well-defined cases, and also those which have failed. By numerous cases thus selected, at different times and in various circumstances, we may at length be enabled to establish a well-founded system, which in the present day is impossible.

Of general Bleeding. This means may either be eminently useful or prejudicial, according to the period when it is employed, and especially according to the species of the disease. M. Desormeaux only advised general bleeding in those cases of the pure inflammatory form, which have been before described, and in such instances, which were not very common, great advantage was derived from the lancet. When boldly employed from the beginning, and repeated several times in twenty-four hours, general bleeding sometimes cut short the disease, or at least diminished its severity, and hastened its termination: but more commonly the general symptoms were alone relieved, and other means were required to combat the local inflammation. Venesection was rarely beneficial in the second stage of the disease, but still it was sometimes occasionally useful, when, after suppuration and effusion, there was strong and general reaction, with a hard and quick pulse, hot skin, red face, and animated expression of the eyes. Under these circumstances the appearance of some secondary inflammation was to be feared, particularly pleurisy or pneumonia, and bleeding was the most likely means to prevent its developement. But all the cases were not so well marked. Sometimes a case of general plethora was masked under the deceptive appearance of weakness and prostration: the face was pale, pulse small, heat of skin moderate. Here every symptom tended to lead the practitioner astray. In such difficult cases, a careful examination of the heart and lungs often furnished valuable information. If the contractions were tumultuous, and the pulsation of the heart powerful, and if the respiratory murmur was feeble and oppressed, and without any other modification, M. Desormeaux had recourse to a tentative bleeding *(saignée explorative,)* and it was repeated, or not, according to the effect produced, and the appearance of the blood. General bleeding was sometimes found useful in that short period of inflammatory action which usually precedes the developement of typhoid symptoms, although this variety of the inflammatory form of the disease, being less pure in its nature, and less decided in its progress, was more safely treated by local bleeding. The employment of general bleeding in these cases required great prudence. It could not be used beyond the first days, or often even after the first few hours; and, however intense the pain, it was inadmissible the moment typhoid symptoms appeared.

Of local Bleeding. The employment of local bleeding by means of leeches, may be considered, particularly in the disease of which we are treating, as a modern discovery; for, although it was not entirely neglected by the ancients, it is so differently employed in the present day, that it is in fact a new method of treatment. Of all the means employed in the puerperal diseases which we have witnessed, none was more frequently applicable, or followed by more favorable effects, than local bleeding by leeches. This practice was adopted in acute inflammation of the peritoneum and uterus, where there was strong general reaction; and M. Desormeaux in such cases often employed it after venesection. In the transitory and often ephemeral inflammations which usually precede the developement of typhoid symptoms, in which it was had recourse to from the very commencement, its employment was much more frequent than general bleeding. The leeches were always applied to the belly, and as many as forty or sixty, and they were often repeated on the same and following day, if the disease was not evidently checked. It very frequently happened that more than two hundred were applied to a patient in the space of thirty-six or forty-eight hours. When the leeches dropped off, the patient was put into an emollient hip-bath, and the belly was then covered with a large poultice, to keep up the bleeding. Each of these local bleedings produced as abundant a flow of blood as could have been drawn by venesection, but the subsequent effects were not at all similar. Venesection, by unloading the large vessels, usually produced a rapid amendment of the general inflammatory symptoms, without, however, always sensibly influencing the local malady. Bleeding by leeches, on the contrary, had a constant and well-marked influence upon the local pain, and the general effects were remote and secondary. The one produced rapid debility; the other was easily borne, even by the most feeble women. In some rare cases, where the powers of the constitution had been oppressed by the violence of the inflammation, local bleeding was followed by strong inflammatory reaction, which it was necessary to combat by venesection; but more commonly, after the application of leeches, there was a remarkable and immediate alleviation of pain, and a suspension of the disease, during which the pulse became soft, the heat of the skin and agitation diminished, perspiration broke out, and even the lochia reappeared. In most cases this calm was but momentary. The inflammation, being thus attacked only in its effects, was quickly reproduced, and it was necessary either to have recourse to general bleeding or to other means for the purpose of effectually conquering it. When effusion and suppuration were formed, and especially when any of those symptoms were present which indicated the absorption of pus, M. Desormeaux carefully abstained from the use of leeches, as he knew well from experience that no benefit could then be derived from such means, and that, on the contrary, it would probably be prejudicial. In this state he had recourse to other remedies, and particularly

Mercurial Preparations. Mercurial frictions upon the abdomen and internal part of the thighs, alternately, were usually preferred. Two or three ounces of strong mercurial ointment were rubbed in each day. Each friction, of two drachms, was regularly employed every one or two hours. The integuments covered with the ointment were cleansed every day with oil of sweet almonds, that their suppleness and permeability might remain. M. Desormeaux often combined the internal administration of calomel with the external use of mercury; but this mode of practice, which was well adapted to cases where there was constipation, or even moderate diarrhœa, was not applicable to the more numerous affections which were attended by abundant alvine evacuations. Eight or ten grains of calomel were generally given daily, combined with opium or extract of hyoscyamus, by which the digestive organs were rendered less susceptible to the action of the calomel, and at the same time the abdominal pains were relieved. This treatment was rarely practised from the commencement of the disease, but still our opinion of its propriety was much more guided by the character of the malady, than by the time which had elapsed since its invasion. As a general proposition, it may be said that, as soon as the primary symptoms of inflammation had given place to others indicative of effusion, suppuration, and especially of the absorption of pus, mercurial frictions were properly and usefully applied. This means was almost always preceded by general or local bleeding; but we must not fall into the error which some have committed, of supposing that the favorable result which followed the use of mercurials was attributable exclusively to the abstraction of blood, for the former were only employed because the latter had failed. The efficacy of the mercurial treatment appears then to be evident; and the more so as, when the disease had arrived at the point in which it was employed, death almost inevitably resulted under any other mode of treatment.

Much difference of opinion still obtains respecting this practice. Many physicians doubt its merits, and very wisely wait for additional facts before they either adopt or reject it. We offer to their notice, therefore, the results of M. Desormeaux's experience. But some practitioners are decidedly opposed to it, because it does not agree with their preconceived theoretical opinions. It is not our intention to discuss, *à priori*, a question which experience can alone determine; but still we may observe that such a mode of argument is unjustifiable. Theories must not be opposed to facts, of which they should be an exact and rigorous expression; and when every fact is not included in them, they must contain some inherent fault. But, besides this systematic obstinacy, we find a blind enthusiasm which adopts the treatment exclusively and rashly. The employment of mercurials is rejected by some as absurd and dangerous, while it is lauded as a specific by others, who appear to forget that their exaggerated eulogiums are calculated to injure the reputation of even our best remedies. The latter contend, and truly too, that the facts they adduce are incontrovertible; but from these insufficient data they hasten to draw *general* inferences, and hence their error. In their hands, we doubt not, mercurial frictions have frequently succeeded; but, if the circumstances under which they pursued the practice no longer exist, if the atmospheric constitution is changed or modified, if the malady which had presented itself to them in a sporadic form should become epidemic, the result will be very different. We have often found mercurial frictions successful, but they have more frequently failed: but we should not therefore be justified in abandoning a remedy which sometimes succeeds when all others fail, in cases where the death of the patient is almost inevitable.

To confirm our opinion of the efficacy of mercurial frictions, we shall detail a few cases which show the effects of this treatment, and, to a certain extent, its mode of action.

Cases of Puerperal Fevers cured by Mercurial Frictions, followed by Salivation.

Case I. St. Den . . ., æt. thirty, of a nervous and weak habit, admitted in May 1829, and was favorably delivered of her first child in July. The same night she had pains in the loins and hypogastrium. Next morning the pains had increased, and were attended with fever, headach, and some nausea. M. Desormeaux ordered fifty leeches to be applied: they drew blood freely, but produced little relief.

Third day, leeches were repeated.

Fourth day, amendment, and hopes of a speedy solution of the disease.

Fifth day, shiverings, and increased severity of all the symptoms. Forty leeches applied.

Sixth day: abdomen painful over its whole extent; face pale and anxious; limbs trembling; small and irregular pulse; involuntary discharge of brown fetid feces in large quantities. From this time bleeding was given up in this case, and mercurial frictions were substituted in the quantity of two drachms every two hours.

The seventh and eighth days, the frictions were continued, with no other appreciable effect than slight erysipelas; but the ninth, the diarrhœa ceased, and the pains were much diminished; countenance improved. Frictions discontinued.

Twelfth day: abundant salivation, which continued five or six days, and then yielded to astringent and opiate gargles, and oily laxatives.

Eighteenth day, the cure was complete, and the patient left the hospital.

Case II. Margaret B . . . ., æt. twenty-one, of good constitution, experienced, the second day after an easy labour, a prolonged shivering, which was quickly followed by violent pains in the hypogastrium and ardent fever. M. Desormeaux ordered fifty leeches to be applied immediately to the abdomen, and as many more in the evening. Symptoms unrelieved. The succeeding days their severity was increased, although fifty leeches had been twice more applied, and warm baths and calomel used.

Fifth day: several liquid stools, perspiration, and some amendment of the symptoms; but this improvement was temporary. In the night the woman was agitated and delirious. In the morning, the belly was very tender to the touch, and much swollen; face pale and sunken; skin hot and dry; respiration anxious, pulse rapid. Two ounces of mercurial ointment were now rubbed in every twenty-four hours: at first, without any very sensible benefit; but on the ninth day (the third of the mercurial treatment) the pains diminished, there was less depression, the pulse rose. The frictions were now discontinued.

The tenth day, the mouth was affected, and an abundant diarrhœa came on; a large quantity of puriform discharge flowed from the vagina. From this time the improvement was evident. The salivation increased much the following days, and was accompanied by a thick exudation on the tongue and internal membrane of the cheeks. Astringent gargles soon relieved these symptoms.

The patient quitted the hospital on the seventeenth day: she was pale, weak, and bloated, but out of danger. She had latterly felt a fixed pain in the muscles of the arm, and the formation of a deep-seated abscess was suspected.

There is a great analogy between these cases: intense inflammatory symptoms, rather local than general, were in each ineffectually opposed by vigorous bleeding. A calm occurred, it is true, but of that insidious nature which, as we have before remarked, often precedes suppuration. Very shortly new symptoms appeared, of a more formidable and very dangerous character. Mercurial frictions were only then employed, and we cannot reasonably refuse to them the merit of the cure. It is not to be doubted that the local abstractions of blood were of some service: if they did not entirely dispel the vascular congestion, it is at least probable that they diminished it, and thus paved the way for the favorable effects of the mercurial frictions. It is to be remarked that this means is not followed by the prompt and instant relief which is usually obtained from bleeding or leeches. Its beneficial effects were not manifested until after some days of painful uncertainty. The simultaneous occurrence of salivation, diarrhœa, and abundant flow of the lochia, must not pass unnoticed, and also the coincidence of these various circumstances with the cure of the disease. We shall subsequently, however, dwell more at length upon this important point.

Puerperal Fevers cured by Frictions, followed by Salivation and profuse Sweating.

Case I. Dub . . ., ætat. twenty, nervous and irritable, had, on the third day after a favorable and first labour, all the symptoms of intense metro-peritonitis. During the first days of the attack, the following means were successively employed. Fifty leeches were twice applied to the hypogastrium; hip baths, emollient poultices, and other secondary remedies likely to fulfil the general indication. No benefit was derived. To the violent pains, vomiting and fever, which appeared at first and still continued, were added on the fourth day, copious diarrhœa, swelling of the abdomen, anxiety, great depression of the pulse, and a certain appearance of prostration, which appeared to indicate the presence of pus in the blood-vessels.

M. Desormeaux now substituted for the local bleedings, mercurial frictions, in the same quantities and manner as above mentioned. The third day of their employment, (seventh of the attack,) the abdominal pains diminished; the lochia reappeared, but were puriform and scanty; alvine evacuations less frequent. The frictions were now discontinued.

Eighth day: wandering pains in the limbs.

Ninth: profuse and almost constant sweating, accompanied by decided feelings of improvement and calm sleep.

Tenth: moderate salivation, which lasted four days; after which the patient left the hospital quite convalescent.

Case II. Henri . . ., æt. twenty-seven, of good constitution, was favorably delivered of her first child the 4th of November. The same day she had symptoms of metro-peritonitis, which increased to a great degree of violence on the following days. Ipecacuanha from the beginning; 210 leeches in four days; oily laxatives, hip baths, and emollient poultices, were the means used by M. Desormeaux, and with much advantage. But on the eighth day shiverings returned, and pain; the belly swelled, and fluid was evidently contained in its cavity; skin dry and hot, pulse small, frequent, and feeble.

Mercurial frictions were now begun; two ounces of ointment in eight applications each day. The second day of this treatment the patient was agitated and delirious. On the third, she was calm and sensible of improvement. An emulsion of castor oil was given to act upon the bowels, and the next day she had several liquid stools, and copious and long-continued sweating: sensibility of the abdomen was now much diminished, and on the fifth day entirely disappeared, at which time profuse sweating again occurred more abundantly than before, together with several free motions. The frictions were discontinued. On the sixth day the lochia reappeared, and the mouth was affected: salivation increased, and did not cease until the twelfth day, when the patient left the hospital cured.

CASE III. *Profuse sweating; salivation very slight.* Brun..., æt. thirty, in good health, was attacked, the third day after her first labour, with metro-peritonitis, accompanied by violent inflammatory symptoms. The disease was opposed from its commencement by bleeding, and on the following days by two applications of fifty leeches each. On the sixth day the severity of the symptoms was diminished, but still there remained in the iliac fossa acute pain and deep-seated swelling, for which twenty leeches were applied, and some mercurial frictions, of a drachm each.

Tenth day: shivering.

Eleventh: severe pain and swelling over the whole of the belly; nausea, difficulty of breathing, and great prostration. M. Desormeaux now began the use of frictions in the quantity of two ounces in eight applications, and prescribed an oily mixture.

Twelfth: irregularity of pulse, and so much exhaustion that the patient with difficulty articulated a few words. Blisters were applied to the legs to produce general excitement. Thirteenth, she rallied a little.

Fourteenth: much better, and slept well during a part of the night.

Fifteenth: pains disappeared; a discharge of puriform lochia, and several stools procured by two ten-grain doses of calomel. The ointment was reduced to half an ounce, and the next day it was discontinued altogether.

Seventeenth: gums slightly, and but for a short time, affected. Profuse sweating occurred, and lasted for ten days, but still the patient gradually recovered her strength.

Thirtieth day, in the substance of the leg, a deep-seated swelling was detected. A collection of pus formed, and was soon discharged externally: the wound soon healed, and the patient left the hospital, in a very good condition, on the forty-first day.

In these cases, as in the two first, mercurial frictions were employed immediately, when the inflammatory symptoms gave place to those more serious signs indicative of the formation, and often of the absorption of pus. From this period evacuation of blood must be useless, and even injurious: it would only diminish the remaining powers of the constitution, which are so much required to resist the injurious consequences of suppuration, or purulent absorption. The pus cannot be evacuated in these instances, as in external phlegmon; and its presence in the substance of various organs is incompatible with the due exercise of their functions. We have then to assist in its elimination by our therapeutic agents; and it appears that mercury is here a powerful auxiliary. At present, indeed, this opinion is hypothetical, but an attention to the various phenomena which follow the employment of mercurials confirms it to a certain extent. Authors, who have employed mercurial preparations in the treatment of puerperal fevers, have all observed that the appearance of salivation is almost always coincident with an amendment of the general symptoms; but they have passed over certain other, and not less remarkable facts, which were observed in the preceding cases. In most of these instances, salivation was accompanied by a discharge of the lochia, abundant alvine evacuations, or profuse and long-continued perspirations, followed by decided improvement. From these occurrences, the convalescence of the patient was so far from being procrastinated, that they appeared to tend towards the re-establishment of strength and health. Sometimes these various phenomena occurred simultaneously in the same individual; at others they happened separately, and in succession; and often they appeared reciprocally, to supply the place of each other. Thus, in the last case, almost immediately that the mouth became affected, profuse perspiration supplied the place of salivation; and in almost every instance where salivation did not occur, some other supplementary symptom was remarked. It is probable that these different organic actions are not merely destined for the evacuation of purulent secretions, but that they tend also towards the elimination of the mercurial particles, which have been shown by recent chemical analysis to circulate unchanged in the animal fluids, and to be deposed in the substance of different organs.* The art of the physician consists, therefore, not in opposing these various phenomena: by so doing, he would be contending with necessary symptoms. He must, on the contrary, assist and maintain them, and guide their progress. This appears to us to be the true system of physiological medicine, and it is that which M. Desormeaux pursued. To keep up perspiration by warm coverings and vapour baths, to provoke evacuations from the bowels by oily laxatives, to support the powers of the economy by light infusions of bark or calumbo, and never to oppose the above symptoms, except when they threaten to pass beyond a desirable extent, should be our constant endeavour.

(To be continued.)

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* London Med. and Phys. Journal, September 1830, p. 202.

RUPTURE OF THE UTERUS.

Case of Rupture of the Uterus, successfully treated. By WM. S. HENDRIE, M.D. of Hilltown, Penn.*

MRS. ——, a small woman, of healthy constitution, thirty-three years of age, pregnant with her eleventh child, was, on the 17th of May, 1829, at about twelve o'clock in the morning, taken with labour pains, and sent for her physician, Dr. SAMUEL CAREY. Her labours had been uniformly tedious and painful; rendered so in a great measure by a small bony tumor, situated on the projection of the sacrum, lessening the anterior-posterior diameter of the pelvis, at least one inch or one inch and a half.† At ten o'clock the os uteri was so high as to be reached with difficulty by a common examination: it was, however, considerably dilated, and the presentation natural. She was bled to the amount of twenty ounces, and an enema administered, by which the rectum was freely evacuated. As had been the practice with most of her preceding labours, the Secale cornutum was given: this soon produced its usual effect, and continued for some time. During a violent expulsive effort, the pains suddenly ceased, the abdominal tumor changed its regular appearance, she declared something unusual had occurred, and supposed she was about to be delivered of twins: the head immediately receded, and considerable hemorrhage took place.

This is the history I received of the case from Dr. Carey. I saw her at nine o'clock in the evening, about eight hours after the accident had occurred. At this time she was labouring under great anxiety; considerable prostration; pulse frequent and feeble; extremities cold; abdomen very much distended, and in some parts extremely tender; hemorrhage very much diminished: the child could be distinctly traced through the abdominal parietes. No doubt existed with regard to the nature of the accident that had occurred. After a careful examination, we ascertained that the rupture was on the anterior part of the uterus; that the child, together with the placenta, had entirely escaped into the cavity of the abdomen: the rent commenced in the cervix, on the right side, extended obliquely toward the left about three inches; the remainder of the laceration was at the junction of the uterus with the vagina. The fundus of the uterus was pretty firmly contracted, but the body and cervix flaccid and yielding. The child lay obliquely across the abdomen, the head towards the right iliac region.

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* American Journal of Med. Sciences.

† Of the ten preceding labours, the forceps had been used twice: she has, however, given birth to five living children.

Notwithstanding the length of time that had elapsed since the occurrence of the accident, as the parts concerned in the injury did not oppose any obstacle to delivery, *per vias naturales*, we felt justified in making that attempt, especially as the history of all preceding cases left us nothing to hope from the conservative powers of nature. Having made a candid statement of the probable result to our patient and her friends, they promptly acquiesced, and even expressed a willingness to submit to any operation we should think necessary, to relieve her present anxiety and distress.

Having placed her in a favorable position, the hand was introduced, the bladder being previously evacuated: the feet were readily obtained, and the body of the child delivered with the utmost facility. Some difficulty was experienced in getting the head through the superior strait of the pelvis, owing to the exostosis already mentioned: this was finally accomplished with the aid of the crochet. The hand was again introduced, for the purpose of extracting the placenta, which was found in the left side of the abdomen. Some large coagula were brought away entangled with the secundines. In searching for the placenta, my hand was in contact with the naked intestines; from which circumstance no doubt can remain of the rupture being complete. After ascertaining that none of the bowels protruded from the laceration, she was placed in bed, in a very exhausted condition; a cordial anodyne was given. Two hours afterwards she expressed herself as feeling quite comfortable.

18th, six o'clock A.M. Has rested very well since twelve o'clock. System appears to be reacting; pulse remains small and frequent; complains of some soreness, but no pain, yet the abdomen is quite tender to the touch, and is somewhat distended. Directed fomentations to be applied to the abdomen, and a cathartic mixture.

Six o'clock P.M. Abdomen greatly distended, and extremely painful, exquisitely so on pressure; pulse frequent and tense; skin dry and hot, cathartic has not operated. Ordered V.S. ℥xviij.; cathartic medicine to be repeated, and its operation solicited by an occasional enema; fomentations continued.

19th. Passed a very restless night: bowels freely opened this morning, since which the pain and distention of the abdomen very much diminished; pulse less frequent, yet somewhat tense. Ordered venesection ℥vij.; Nitro-antimon. pulv. every two hours.

21st. Is much better; no pain, and very little tenderness on pressure; pulse soft; skin cool; countenance lively and cheerful.

21st et seq. She is still improving; thinks herself able; if permitted, to sit up and have her bed adjusted. Rest, and a low diet, were enjoined, and persevered in for several days; her convalescence was rapid and uninterrupted: four weeks after the accident, she was able to attend to her domestic affairs; complains of no particular uneasiness, except the inconvenience resulting from a urinary fistula.

January 20th, 1830. Enjoys at present remarkably good health; has menstruated regularly since August. In July an apparatus was procured, for the purpose of obviating the inconvenience arising from the fistulous opening in the bladder: it has been worn till within the last few weeks, and has affected a radical cure.

HOSPITAL REPORTS.

ST. GEORGE'S HOSPITAL.

*Cases of Fistula Perinei.**

Case I. William Lord, ætatis sixty-eight, admitted June 2, 1830, under the care of Mr. Babington.

Has numerous fistulous openings in the perineum and scrotum, especially on the right side; another fistulous opening over the right abdominal ring: the various openings communicate more or less directly with each other, undermining the integument, which is blue, unhealthy, and excoriated. The urine escapes through all. No instrument whatever can be passed into the bladder.

By the patient's own account, no urine has passed through the meatus for nearly ten years, during which period he has had the various fistulæ in perineo. Has had stricture for twenty years.

On the 5th several sinuses were laid into one, in order to afford a more ready exit to the urine, and prevent its spreading towards the pubic openings. On the 11th he was seized with a violent rigor, speedily followed by another: the integuments of the perineum looked red, and the wounds were sloughy. Reaction to a slight extent succeeded, but there was no pain in the loins to demonstrate mischief in the kidneys, no evidence of erysipelas. Æther mixture and camphor were given internally; poultices, and the recumbent position, were the external agents.

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* Medical Gazette.

On the 14th the subcutaneous cellular membrane of the perineum and posterior part of the scrotum were evidently infiltrated with urine; the former was inclined to slough. The patient had been sick in the morning, and was very low, but he had experienced no return of the rigors.—Catap. Fermenti. Haust. Cinch. c. Tinct. Op. ♏v. t. d.

On the 15th he appeared to be dying, and displayed all the symptoms so characteristic of the prostration produced by urinous effusion. The countenance was sunken, sallow, hectic; the mind wandering; the pulse feeble, rapid, intermittent; the tongue dry, glazed, and red; the bowels disposed to diarrhœa. The cellular membrane of the perineum was sloughing, the infiltration extending to the dependent parts of the scrotum, and the skin in that direction assuming the peculiar erythematous tint.—Lotio Acid. Muriat. c. gtt. iij. ad Aquæ ℥j. Vin. rubri ʒiv. Sp. Vin. Gall. ℥iv. quotidie. Cataplasmata.

We believe that some incisions were made by Mr. Babington, but at all events the patient made a rally, and for two or three days did surprisingly well. The sloughing stopped, and the urine was freely discharged from the wound, for nearly the whole were now merged into one.

In the afternoon of the 17th he again had a rigor, and from this time to the 20th he went on with little alteration, being perhaps rather worse than better. He was very low, with feeble, intermitting pulse; dry, glazed tongue; and great despondency of mind. The state of the parts in the perineum varied little, being sloughy, with red, inflamed skin around.

In the evening of the 20th he died.

Sectio Cadaveris. Body emaciated.

Integuments of the whole perineum removed by ulceration and sloughing. The latter had not passed below the subcutaneous cellular membrane, but sinuses ran more deeply in various directions. One passed round the penis on the left, and debouched into an ulcerated opening of some size on the right side of the pubes. The anterior portion of the urethra ended about the root of the penis in a perfect cul-de-sac. Beyond this extended, for an inch and a half, a solid callous mass, in which corpora cavernosa and spongiosa were blended, and no canal could be discovered. About this spot were numerous sinuses.

The bladder was very capacious, not much thickened, and free from ulceration. The membranous part of the urethra was dilated, and about two inches from the caput gallinaginis it ended in two large apertures, leading to the perineum, near the arch of the pubes. These openings, originally formed by ulceration, passed through the upper part of the urethra.

Kidneys small and puckered; left studded with small vesicles, and presenting one or two portions not unlike the medullary degeneration; right displaying still more of this appearance, and showing some approaches to the scrofulous tubercle.

Liver very soft, and of nutmeg colour.

Thorax: Heart flabby, and rather large.

Case II. Robert White, ætatis fifty-nine, a country labourer, admitted July 14, 1830, under the care of Mr. Babington.

Swelling, of the size of a duck's egg, in the centre of the inferior part of the scrotum; no tumefaction of the perineum. Symptoms rather low and typhoid, but not to any extent: appearance unhealthy.

By his own statement, has had stricture for eighteen years, and bougies have been often introduced. Present symptoms have been coming on for a fortnight or three weeks.

The tumor was punctured, and the contents of a sloughy, urinous abscess discharged, but a good deal of induration remained at its sides. A small catheter, without a stilette, was introduced with little difficulty into the bladder, but it seemed to pass through a gristly false passage, and some pus escaped through it before the water issued. The quantity of the latter was then and afterwards remarkably small. The catheter was ordered to be kept in the bladder at night, and withdrawn during the day.—Catapl. lini.

15th. Symptoms rather more typhoid; no sickness nor rigor; sloughing of cellular membrane of scrotum.—Mist. Camph. c. Ammon. Carb. gr. v.; Liq. Op. Seq. ♏vj. 6tis horis.

16th. Feels lower; pulse feeble, not very frequent; tongue dry, and rather brown in the centre; night delirium. Wound much the same. Arrowroot. Vin. rub. ℥viij. Cerevis. fortis ℥viij.

Wound injected with solution of chloride of soda, filled with carrot, and covered with a poultice.

Vespere. Prostration increasing.—H. Cinch. c. Acid. Sulph. Dil. ♏xv. 6tis horis. Om. Mist. Camph.

17th. Diarrhœa, wound cleaning.

21st. Has continued with little alteration, having never fairly rallied from his feeble state. Has a tendency to low delirium, and is constantly crying; pulse feeble; bowels disposed to diarrhœa; urine at times contains pus. Is troubled with nausea; no rigor. The sloughing of the scrotum has entirely ceased, and the wound is becoming clean. The symptoms of sinking rapidly advanced, and on the 23d he died. The instrument could be passed from the penis out through the wound.

Sectio Cadaveris. Body not much emaciated.

Abdomen: Kidneys large, flabby, mottled in colour, with small yellowish spots dispersed through them. When cut open, they looked like Castile soap, but were paler. Parts were minutely injected with blood-vessels; parts showed a deposit, apparently of partially organised lymph. The distinction between cortical and tubular structure was obscured. The whole was, no doubt, a specimen of chronic inflammation of the kidney. The inner membrane of the ureters and pelvis was inflamed; in one it was covered with lymph. The ureters were not dilated.

The bladder was small, contracted, thickened; its mucous membrane in a state of chronic inflammation, but not ulcerated. The urethra, from the caput-gallinaginis to the urethral end of the membranous portion, was extremely dilated. Beyond this, the proper canal of the urethra was entirely obstructed; but a false passage extended from the farther confine of the obstruction, by the side of the natural channel, and opened into the bladder beneath the caput-gallinaginis. The obstructed part of the urethra was solid, and of gristly hardness. The tunica vaginalis of the testes was mixed up in the indurated walls of the sloughy abscess in the scrotum. This, of course, communicated both with the urethra contained in the penis and the false passage leading to the bladder. It formed a sort of entrepôt between them.

Thorax: Nothing particular. Cranium, not examined.

The ordinary reports of cases are often so imperfect, that it is scarcely fair to censure, upon their evidence alone, the practice that has been adopted: if, however, the report of the above cases is correct, we certainly think that an operation might have been performed in them with some chance of benefit, which it does not appear was attempted. In order to obtain a third opinion, either in refutation of our own, or in confirmation of it, we requested a hospital surgeon, whom we had seen operate with success in cases similar to the above, to give us the results of his experience upon the operation of dividing strictures of the urethra. The following is the communication with which he has favored us.

" The operation of dividing a stricture in the urethra, *situated in the usual seat of stricture,* viz. at the junction of the bulb with the membranous portion, may be performed with great quickness in the following manner:

Introduce a middling-sized staff into the urethra, till it reaches the stricture; then, feeling the end of the instrument from the perineum, cut down upon it, the incision made through the integuments being one inch and a half in length, and parallel and close to the raphe, the incision into the urethra being half an ineh in length. Withdraw the staff, after having exactly seen and felt where it points when held in the usual position towards the bladder; then thrust the scalpel forward in the line of the contracted and indurated urethra, one half or three fourths of an inch. Next, introduce along the urethra a middling-sized catheter, and try if it will pass into the bladder: it probably will; but if it be still obstructed, withdraw it a little, and lengthen the incision that has been already made, if the part beyond be firm and cartilaginous; or from the point where the previous incision began, thrust the knife half an inch forwards, with the edge directed upwards, instead of transversely, as before: the catheter will afterwards certainly find a ready passage onward to the bladder.

The urethra *beyond the stricture* is sure of being opened by incisions made in this manner, provided the operator possess a correct anatomical knowledge of the parts, as that portion of the canal is always capacious in such cases, having been dilated by the long-continued pressure of the urine. Those who fail in performing this operation, fail from want of boldness, losing time in endeavouring to find a channel through the stricture by means of a probe or small catheter, after the urethra is cut into, which may serve as a guide in the division of the stricture. Such a guide is not needed by one who relies upon sufficient anatomical knowledge, nor should be thought of by the operator, if, as is likely, he has already found the urethra impervious to the smallest instruments.

The operation is concluded by fixing the silver catheter in the bladder. The silver catheter had better be removed in forty-eight hours, and an elastic one substituted, which is to be changed for another every day subsequently, till the wound has cicatrized; at which time a urethra is left, which has indeed some tendency to contract, but which requires only, for the prevention of this consequence, the occasional introduction of a bougie.

The operation which has been described is applicable, 1st, to stricture complicated with rupture of the urethra; 2d, to certain cases of stricture complicated with fistula perinæi; 3d, to certain cases of simple permanent stricture.

I. Rupture of the urethra, in the ordinary situation in which that lesion occurs, is characterized by sudden and considerable swelling of the penis, scrotum, and perineum, followed quickly by discoloration and partial sloughing of the integuments. Not but that these symptoms occur from other causes. 1. In dropsical persons, there may be anasarcous swelling of the private parts, attended with difficulty of passing urine, and even inflammation and sloughing from distention; 2. an abscess forming near the rectum, and opening into it, and receiving an admixture of fecal matter, I have seen attended by sudden œdematous swelling of the perineum, scrotum, and penis, followed by extensive sloughing of the integuments and cellular membrane, presenting all the external characters of ruptured urethra. 3. I have seen, in consequence of violence done to the testes, sudden and enormous discoloured swelling of the scrotum, perineum, and penis, from the rupture of a vessel, a pint of blood coming away, half clotted, half fluid, on an incision being made. 4. Appearances similar in kind were present in a patient under my care, on whose hip part of a wall had fallen, fracturing the pelvis in several places, at one of which the external iliac vein had been torn, the blood flowing from whence had made its way into the pelvis, perineum, scrotum, and penis.

In a genuine extravasation of urine, from rupture or giving way of the urethra behind a stricture situated near the ligament of Camper, the operation which has been described is peculiarly applicable. Other and additional incisions into the parts swollen with urine are indeed requisite in such a case, in order to give vent to the urine which is diffused through the different parts, and so to lessen the quantity of mortification which must follow; but especially an incision down to the urethra and through the stricture is necessary, in order to allow a catheter to be passed into the bladder, and thus to prevent any *further* infiltration or flow of urine into the cellular membrane, leaving no further demand on the frame than the effort of cleansing the infiltrated scrotum and penis.

II. The same operation is of the utmost service in certain cases of fistula perinæi resulting from stricture.

Cases of stricture complicated with fistula perinæi are of two kinds: the first are those in which the constitution is good, and the stricture in the way of yielding to ordinary means: in such cases let the stricture be enlarged, and when a middling-sized catheter can be passed, let it remain in the urethra, (being changed, of course, frequently, and for a larger one:) not only will the stricture be cured by this means, but the fistula, no longer irritated by the flow of urine through it, will readily close. The second case is that in which the constitution threatens to give way, under the complicated irritation of stricture and fistula with no passage for an instrument through the stricture, or at best a passage through a cartilaginous stricture for a minute catheter only, which would neither serve to dilate the urethra, in such a case, nor prevent the continual flow of the urine through the fistulæ, or the occurrence of fresh infiltrations of urine into the adjacent cellular membrane. To this second case the operation described is perfectly applicable: perform it, and the further flow of the urine through the fistula, or into the cellular membrane, is prevented; the bladder is relieved of the strain of urging the water through narrow and obstructed channels, and the constitution is disembarrassed of all that deranged it.

III. The operation described above is perhaps again applicable to some cases of very narrow stricture of the urethra, unattended with fistula. 1. If such a case were complicated with calculus, and there were reason to suppose that a calculus had made its way into the urethra, and lay behind the stricture, the operation would be strictly applicable. 2. Suppose a case, in which the stricture habitually allowed the water to flow only drop by drop, and that complete retention of urine, not yielding to common remedies, had supervened; it would certainly be a question whether, in such a case, the operation described above should be performed, or the bladder punctured, and slower means of curing the stricture resorted to. 3. Suppose a severe case of stricture, the urine for several weeks having flowed by drops, attended with continual danger of complete retention, or of rupture or ulceration of the urethra, the same question recurs.

In the two last instances, however, the expediency of the operation above described is extremely doubtful. With proper care, either the retention of urine may probably be relieved, or the danger of rupture of the urethra prevented; and by means of armed bougies, or of dilatation, begun by the use of fine catgut bougies, or by the use of catheters perforated at the end, and allowing a lancetted stilette to be thrust forward, (a method revived by Mr. Stafford, which is occasionally advantageous,) the stricture may probably in every instance admit of being cured."

We cannot approve of the tone of despair in which the reporter speaks of cases of fistulæ perinei. He appears to consider them generally as opprobria to surgery, but we know, from our own observation, as well as from the experience of others, that, when they are skilfully managed, they are, most frequently, highly creditable both to the surgeon and his art.

EDINBURGH ROYAL INFIRMARY.

*Strychnia in Amaurosis.**

Case I. Peter Hamilton, ætat. twenty-two, an iron-founder, admitted 16th June, 1829, can only distinguish light from darkness. Both pupils are much dilated, the right more than the left. The iris in both is sensible to the stimulus of light. The eyes are clear, and, with the exception of a slight squint, present a natural appearance. This state of vision has continued two years. His account of its commencement is as follows:

Having been for some years daily working under exposure to the heat and light of an iron-founder's furnace, he became affected with indistinctness of vision, accompanied with flashes of light when looking at minute objects, or when stooping. This indistinctness became gradually more and more obscure for fifteen months. At the end of this time he could only distinguish light from darkness, and has remained in that state nine months. His general health had all along been quite good.

17th. The temples were shaved and blistered, and one eighth of a grain of strychnine dusted the following day on each side.

23d June, (6th day.) Within the last week a blister has been, twice in succession, applied to each temple, and to the raw surfaces, first one eighth, then one fourth, and today half a grain of the powder of strychnia. The pupils are less dilated, and the iris readily contractile; strabismus almost gone; tongue rather foul; bowels open.

25th. Can today distinguish colours pretty readily, especially with the left eye, the iris of which is less sensible than that of the right. Half a grain was applied to each temple.

26th. Still continues to improve, and can distinguish yellow and red colours; some headach, and tongue much loaded and white. Three fourths of a grain to each surface; a cathartic mixture.

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* Remarks on the Treatment of Amaurosis, &c. by THOMAS SHORTT, M.D. F.R.S.E. &c. (Edinburgh Med. and Surg. Journal, October.)

Dr. Shortt considers strychnine to act purely as a stimulant either of the nervous matter of the nerves, or of their capillary system, and therefore to be successfully employed only in amaurotic cases which depend on paralysis of the optic nerve and retina, or in cases of congestive amaurosis from pressure on these parts, with a loaded and inactive state of the minute vessels of the neurilematic envelope. As these affections are often ascertained with difficulty, cases may be viewed as such, though arising from structural derangements of the interior of the organ of vision. Mr. Liston, Mr. Guthrie, and other surgeons, have also published cases which show the efficacy of strychnine in amaurosis when it depends upon paralysis or congestion. Dr. Shortt is of opinion that in such cases the beneficial operation of strychnine is considerably aided by the previous use of mercury. He cannot positively say whether the effects of strychnine are lasting, but he believes it in most cases to be so, if properly used. In no case in which he has tried it, have injurious effects arisen. In delicate persons, or where the system is affected by mercury, Dr. S. adds, that the dose of strychnine should not be more at first than a quarter of a grain, increasing it daily until it produces sensible effects on the constitution, as headach, pricking pains over the body, or tremors; it must then be discontinued, and, on resuming it, the dose should always be considerably reduced.

27th. Less headach; sight considerably improved, for he can distinguish print from writing. One grain applied to each surface.

28th. Vision more distinct. Had an additional grain and a quarter yesterday. Had one and a half on each surface.

July 2d, (15th day.) Had one grain and three quarters on the 30th. On the 1st, an attack of rigors, debility, sickness, vertigo, and headach, which are now gone, but feels weak. Can now clearly distinguish objects placed at the distance of some paces, and reads easily the hour upon a watch by evening twilight; iris of both eyes quite sensible. Intermit strychnine.

4d. Sight still further improved. Renew the blisters, and one fourth grain of the powder.

13th. Can now distinguish objects clearly at considerable distances. Pupils continue more contracted, although less than naturally. Strychnia, from one fourth to three fourths of a grain, has been applied as before.

26th. Strychnia has not been applied since last report, from a sensation of violent heat over the skin.

August 4th. Since the last report two grains have been applied to each temple, without any obvious effect; but improvement in vision continues.

16th. Has had two grains on each temple for eight days. Repeat blisters, and apply two and a half grains to each surface.

September 8th, (79th day.) Since the last report he has been applying the strychnia every day, from two to three and a half grains on each temple, without any constitutional effect, but with continued improvement in his sight.

There were some days of intermission, when the blisters were obliged to be renewed. Yesterday he left the Infirmary, and attempted to work; but finding that the act of stooping occasioned dimness of sight, he returned the next day, and resumed the strychnine, to the extent of three grains on each temple, and continued gr. ijss. to the 13th. It was then omitted, and on the 31st, when he could see perfectly, he was ordered to apply the vapour of ammonia for a few days. The eyes appeared quite natural, the squinting gone; and he was enabled to tell the time upon the Tron church clock from the Infirmary windows, at the distance of 300 yards.

Case II. Andrew Drummond, æt. thirty-four, a ship-carpenter, admitted October 2d, 1829. This patient can only distinguish light from darkness, a window from the wall. The pupils of both eyes rather contracted, and there is but little sensibility of the iris. In the left eye there is a ring of opaque substance, the remains of a cataract, the centre of which was removed by an operation; but although the light was thereby admitted, he was still unable to see. This ring can only be observed when the pupil is dilated. This state of vision, which, with little change, has continued six years, commenced as follows.

He had been employed as a flaxdresser six months before he was attacked with fever at Dundee. This was about six years ago. But some weeks previous to this attack, dimness of sight had gradually come on; and then, during the dilirium of fever, his sight was totally lost, and likewise his hearing. During his convalescence he regained his hearing, but remained quite blind; sometimes, however, distinguishing light from darkness. A year after this he was admitted into the Infirmary, had the centre of the cataract removed from the left eye, was blistered, and had setons both in the nucha and in the inside of the arms; but he left the hospital without receiving any benefit to his sight. Two years ago he returned to the house, underwent medical treatment, took mercury, renewed his blisters and setons, and left the house again without any distinct improvement, but only thinks he saw a little more clearly. He has, since his fever, enjoyed good general health.

Oct. 3d. A blister having been applied to the right temple, yesterday one fourth of a grain of strychnia was dusted upon the raw surface; and states that he saw a little with the right eye about six hours after the application, and that almost immediately after he felt a shooting pain across his forehead, but no other sensation. One grain to be applied.

5th. Says he did not feel the application of the whole grain so much as the first quarter, but thinks his sight still improved. Full diet. Blisters renewed.

7th, (5th day.) One grain since last report. Can now distinguish large from small letters; some vertigo last night. One and a quarter grain, and Aqua Ammoniæ.

10th. Since last report a fresh blister and three grains have been applied as before. Sees the Tron church steeple from the window, and distinguishes the colours of the ward, which he could not do yesterday. One grain as before, and a cathartic mixture.

13th. Since the 8th, two and a half grains have been applied. Noticed yesterday with his left eye the bars of the window. Two blisters since applied have risen well. Strychnia omitted yesterday, and no further improvement in sight. Apply one and a half grains.

18th. Five grains since the 13th, and a renewal of the blisters. Complains of the light affecting his eyes, which he had not experienced before.

22d. Three grains since the 18th, with alternate blisters on each temple. Can today see men walking at a distance, which he could not do yesterday.

Nov. 7th, Since the 22d, nineteen and a half grains have been applied, at most two and a half grains at once; his sight gradually improving, and the intolerance of light removed entirely. Strychnia has been intermitted, and his appetite improved by the tincture of calumba. He can now see (Nov. 11th,) to read the hour upon a common watch; but he cannot yet distinguish small print.

He continued in hospital till about the end of November, during which time his sight was still further improved.

WORCESTER INFIRMARY.

Purulent Ophthalmia, treated with Argent. Nitratum.

By Mr. Herbert Cole.*

April 15, 1830. John Griffiths, a fine child, six weeks of age, was brought here with purulent ophthalmia of both eyes, the cornea of left eye quite opaque from the ulcers which covered it; the right eye but little better. The eyes have been affected ever since the child's birth. The mother had leucorrhœa at the time it was born. The child is now out of health, being much purged. Its stools green, sour, and slimy. ℞. Argenti Nitratis, gr. x.; Aq. distill. f. ℥i. m. f. gttæ. oculis b. d. instillandæ. Sumt. 6ta qq. hora Hydrarg. c. Creta gr. vi. Hydrarg. Submur. gr. ¼ partem. Emplast. lyttæ nuchæ applicetur.

21st. Child's health is somewhat improved. The stools are of a better colour, and not so frequent; discharge not so profuse from the eyes, which are less inflamed. Contin. guttæ; omitt. pulveres. Cap. Solut. Magnes. Sulph. f. ℥ss. pro re nata.

25th. Eyes very much improved; left eye, which was the worst, is now nearly well. The child gets flesh.

26th. Repet. emplast. lyttæ nuchæ.

In about a month after its admission, the child was discharged, cured; the corneæ of both eyes being quite transparent, and the sense of vision quite restored.

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* Midland Med. and Surg. Reporter.

CRITICAL ANALYSES.

Quæ laudanda forent, et quæ culpanda, vicissim
Illa, prius, cretâ; mox hæc, carbone, *notamus*.—Persius.

The Laws relating to the Medical Profession; with an Account of the Rise and Progress of its various Orders. By W. Willcock, Esq. Barrister at Law.—8vo. pp. 450. Clarke, Portugal street, London, 1830.

The title of this book is at the present moment especially attractive, and promises amusement, as well as necessary information to the medical reader. Every man should possess, at least, a general knowledge of the laws which govern the community to which he belongs; and yet it is very certain that the majority of medical practitioners know as little of those which preside over their various ranks, as they do of "Coke upon Lyttleton," or the records of the Court of Chancery. This want of information upon the subject cannot fairly be imputed to their carelessness or inattention; for, until the publication of the present volume, the medical practitioner had no legal guide to direct his inquiries: he could neither have time, inclination, nor the necessary talent, to enable him to obtain even a very superficial knowledge of medico-legal subjects, by poring over perplexing charters or legal documents, couched in "quaint and unsavourie speech." A lawyer only could perform this task. It is true that discussions respecting the legal rights and powers of the different medical bodies have recently been much in vogue; but, as they have mostly arisen from party spirit, and have been therefore intemperately and even unfairly conducted, they have rather tended to mislead, than to afford correct information upon the subject.

Mr. Willcock has divided his work into two parts: in the first, he has so treated the subject as to relieve those, to whose pursuits it particularly applies, from the irksomeness of which the general reader has often to complain in the perusal of works more immediately addressed to the lawyer. The second part comprises the Acts of Parliament, the decided cases, and several very curious and ancient records, which will supply the legal student with the information in which the treatise may be found deficient, and the medical reader with the most authentic sources of the history of his profession.

The first chapter, descriptive of the "Ancient Orders of the Medical Profession," we must very briefly refer to. It forms, however, a very necessary introduction to the work, and cannot be perused without amusement.

Passing over the brief, yet interesting, sketch which is given of the first rude dawn of medical science; the doubtful knowledge, mingled with superstitious stratagems of the druids and bards; the total arrest of every science during the Roman and Saxon periods; the description of the monkish practitioners, who perhaps blended with their medical applications a little learning; we proceed at once to the reign of our Eighth Henry, before whose time it appears that we possess but very scanty materials for a history of the medical profession. In the third year of this reign, an Act* was passed, which is generally received as the first operative law on the subject. By this, which is especially aimed against the sorcerers, witches, and smiths, "who can no letters in the book," provision is made both as to sufficiency of learning and purity from supernatural attainments, by appointing the bishop of the diocese to exorcise the fiend, and two doctors to examine the medical qualifications of the candidate. This statute evidently shows that there were many physicians openly and legally practising, who had derived no sanction from Alma Mater; for they alone appear to have been the proper objects of the examination, as the third clause of the same Act provides for the right of the University graduates to practise without undergoing it. In the fourteenth year of the same reign,† another Act was passed relative to physicians only. Their examination was now confided to the College instituted by the charter of the king. Under this, the University graduates, who wished to practise in London, were included, as well as the other physicians; and since that time the legislature has seldom interfered on the subject.

The monkish physicians were at first the only regular surgeons, and they probably sometimes employed the barbers and farriers in the less agreeable part of the occupation. Their brother ecclesiastics became envious of the profits derived from these secular avocations, and at the council of Tours, in 1163, it was declared that none of the regular clergy should devote their attention to physical compositions. This canon is drawn up in respectful terms towards those against whom it was aimed: "It charges them to have been tempted by the arch enemy to undertake duties at variance with their religious character; they are complimented as being the dainty morsels of Satan, the most worthy members of their profession, and seduced through the best feelings of their nature, a desire to alleviate the sufferings of their brethren." The operative part of surgery being totally abandoned by the scholars, in pursuance of the canon of Tours, it fell into the hands of the barbers and smiths; but the more dignified and regular surgeons were the gentlemen of the Barber's Company. The first recorded instance of the co-operation of physicians and surgeons, is in the unfortunate case of Richard the First, who seems to have been attended and horribly maltreated by both, when wounded at the siege of Chalons: his life was the price of his confidence."

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* P. vi. part ii. † P. vii. part ii.

GUIDO DE CAULIACO, who wrote about the middle of the fourteenth century, gives a curious description of the then state of surgery. For example: "the operation of trepanning appears to have been the subject of amusement; and the object of rivalry was to bore as many holes in the wounded skull as the instrument could make, without destroying it altogether." Wonderful virtues are ascribed to the application of a yet bleeding capon to the stump from which a hand or a foot had been severed, after the process of burning.

The apothecaries, or rather the grocers, had their own share in the business long before the distribution of the medical faculty into physicians and surgeons; and it was not until the introduction of chemical medicines, and too great a variety in the mixtures of the learned physicians, had rendered the medical department of their trade unintelligible to the ordinary grocers, that the pharmacopolites appeared as a separate class, and claimed a superiority over the dealers in cheese, butter, and sugars. The grocers, or poticaries, formed one of the ancient companies of the city of London, and it was only in the thirteenth year of James I. that they were formed into two distinct corporations. From a very early period, the apothecaries had occasionally prescribed the medicines which they sold; thus trespassing, as it was thought, on the province of the physician, until their right to do so was supported by the decision of the House of Lords, in the case of the College of Physicians v. Rose; since which they have continued to enjoy this privilege without molestation. So generally had this branch of the faculty superseded, in many instances, the practice of the physician, that, in the fifty-fifth year of the reign of George III., an Act was passed to provide for the sufficiency of their education; thus, for the first time, placing them, as a body, on the footing of a liberal profession.

The empirics were irregular practitioners, who, despising, or ignorant of, the learning of the schoolmen, and neglecting the dogmas of the regular surgeons, chalked out for themselves a peculiar line of practice. Meanwhile the alchymists were occupied in the discovery of the elixir vitæ, the queen of medicine, the philosopher's stone, or, by whatever other name the supposed panacea, or rather panourgon, was to be called. "Though the mighty discovery never was, and never will be made, each attempt produced some new result valuable to science, and peculiarly conducive to the progress of medical knowledge." By the astrologers, knowledge was impeded rather than advanced. The most profitable part of their business was thought to consist in discovering the influences of the heavens over the human frame, and especially over the affairs of their particular customers. The sorcerers were another class of the ancient orders of our tribe, and of these there were various descriptions: the arch-sorcerer was the king, who affected to cure the scrofula by the royal touch. The Jewish physicians had learnt the arts of healing practised by the Arabians, Greeks, and other orientals, and introducing them into these parts, without the pomp of learning, were infinitely superior to the leeches of Catholic Europe. In all these sects there were innumerable pretenders.

In the age of chivalry, the high-born damsel deemed it an essential part of her education to acquire some proficiency in the art of healing. Her knowledge was not confined merely to the medicinal virtues of herbs: our ancient poets describe her as occupied in setting broken and dislocated limbs, and superintending the dressing of the wounds of her champion. "The kindness and attention of such a surgeon would, at least, alleviate the mental sufferings of the knight, and probably her simple remedies were, with the aid of nature, the best regimen of the period."

We now approach the consideration of the "Present Orders of the Medical Profession;" a subject in which we must be more immediately interested.

"The law recognises only three orders of the medical profession: physicians, surgeons, and apothecaries. It tolerates, however, such persons as through charity, and without receiving any remuneration, minister to any outward sore, uncome, or apostumation, outward swelling or disease, any herbs, baths, poultices, or emplasters, according to their experience or knowledge; or drinks for the stone, strangury, or agues. Chemists and druggists also are noticed as persons who may make and vend medicines; and it may be difficult to show that they may not compound them according to the prescriptions of a physician, or the orders of an apothecary: but they cannot, in any case, prescribe physic of their own authority." (P. 30.)

PHYSICIANS are, in rank and legal pre-eminence, the first class of medical practitioners. By 32 Henry VIII. they are allowed to practise physic in all its branches, among which surgery is enumerated. The law, therefore, permits them both to prescribe and compound their medicines, and to perform and superintend operations in surgery. These privileges are also reserved to them by the statutes and charters relating to the surgeons and apothecaries. But custom has more decidedly distinguished the classes of the profession. The practice of the physician is universally understood, by their College and the public, to be properly confined to the prescribing of medicines, to be compounded by the apothecaries; and in so far superintending the proceedings of the surgeon, as to aid his operations by prescribing what is necessary to the general health of the patient, and for the purpose of counteracting any internal disease.* English physicians are of two classes: of the College of London, and graduates of Oxford or Cambridge. They are again subdivided into licentiates who may practise within the precinct of London, (that is, in the city, and within seven miles around it,) and licentiates who may practise in other parts of England, and in Wales, and in Berwick upon Tweed, but not within the precinct of London. The licentiates of the College who may practise within the precinct of London are of three orders, fellows, candidates, and mere licentiates; the last are alone generally denominated licentiates.

"The charter (10th Hen. VIII.) granted to J. Chambre, T. Linacre, F. di Victoria, N. Halsewell, J. Francis, and R. Yaxley, that they, and all men of the same faculty of and in the city of London, should be in fact and name one body and perpetual community or college; and that the same community or college might yearly for ever elect and make some prudent man of that community, expert in the faculty of medicine, president of the same college or community, to supervise, observe, and govern, for that year, the said college or community, and all men of the same faculty and their affairs; and also, that the president and college of the said community might elect four every year, who should have the supervision and scrutiny, &c. of all physicians within the precinct of London." (P. 32.)

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* R. v. Cowle, 2 Bur. 850-864.

The statute (14 Henry VIII.) confirmed this charter, and further ordained that the six persons above mentioned, choosing to themselves two more of the said commonalty, should from thenceforth be called elects; and that those elects should yearly choose one of them to be president; and then provided for the election of others, to supply the rooms of such elects as should in future be void by death, or otherwise, which was to be made by the survivors of the same elects. By statute 32 Henry VIII., the president, commons, and fellows may elect, at such time as they think fit, four persons of the commons and fellows, to search and examine apothecaries' wares, &c. The college is bound to choose four censors, for the purpose of discharging the duties confided to it.

> "It is evident that the charter so far incorporated all persons of the same faculty, of and in London, that every person, on the 23d of September, in the tenth year of the reign of Henry the Eighth, falling within that description, was entitled to be admitted into the association. Such of them as had availed themselves of this privilege, and others subsequently admitted, are the persons described by statute 32 Hen. VIII., as commons and fellows. But as to the persons who should afterwards enjoy that distinction, the original charter, and all subsequent statutes, are silent." (P. 34.)

The effect of 14 Henry VIII. is, that every man possesses his common-law right of practising in the profession of physic as in every other profession, if competent, and by it are appointed the president and college as judges of this competency. They must admit every man, of whose competency in learning, medical knowledge, and integrity they are satisfied, in the exercise of a fair discretion, that they may confide the health of the patient; and every other person they are bound to reject, until he shall have acquired that competency which he does not, on his examination, appear to possess.

> "The college has confided the actual examination, as to medical knowledge, to the censors; following the spirit of the statute, which has confided the particular oversight of the faculty to these officers. It has also appointed that the doors of the censor's chamber shall be open to all fellows who may think proper to be present, and that they may take part in the examination should they think fit; and that the fellows may have an opportunity of availing themselves of this right, it is appointed that all examinations shall take place at a court held at certain regular intervals." (P. 41.)

The opinion of the censors is to be ascertained by ballot, and certified to the aggregate meeting of the body. If the censors refuse to examine a person who has applied to them for that purpose, the Court of King's Bench will issue a mandamus to the body at large, requiring them to admit such person to an examination, or to make known some sufficient reason for not doing so.[*] The reason usually assigned is, that the applicant is deficient in the qualifications which the rules of the college require him to possess previously to his examination.

> "The statutes of the college require that every candidate for the licence shall have attained the age of twenty-six years, and have received the degree of doctor of medicine, after two years' residence in some academy for the purpose of studying physic; that every one who has used any nostrum in his practice shall make known its composition and mode of application, to the president or vice-president, and censors; and that every applicant who is a member of the society of surgeons or apothecaries, shall resign his place in such society previously to offering himself for examination." (P. 42.)

The mode of examination is wholly in the discretion of the college. A mandamus would issue against the president and censors, should they refuse to license a person approved of by the Comitia minora, and they must show that they had subsequently examined such person, and found him deficient. The order of candidates was not founded on any Act of Parliament or charter, but was created by the by-laws of the college. They are not, therefore, officers, or even members of the corporation, but mere licentiates, who may, or may not, be afterwards admitted fellows, according to the discretion of the college.

> "Although the college has thought proper to prescribe certain qualifications, which it requires those to possess who may seek admission into this order, it does not, nor can it confer on persons possessing that qualification a right, far less an exclusive right, of admission to any distinction beyond that of the licentiates.[†] All that persons so qualified can claim is, an examination, admission to practise, and the grant of letters testimonial." (P. 44.)

Many and expensive litigations have taken place between the licentiates and fellows, from the claim urged by the former to be considered members of the college. We must refer to the work itself for a detail of the various suits at law, and the different arguments maintained by advocates and judges, upon this often contested point. It appears that the charter incorporated all physicians then legally practising in London, and each of them, who thought proper to accept it, became *ipso facto* a member or fellow;[‡] but

[*] Dr. Letch's case, p. xxix. et seq.

[†] Dr. Schomberg's case, p. lxxviii.

[‡] P. lxxvii.

as all future practitioners, within the precinct of the city, were required to obtain the licence of the college, there soon arose two orders in the profession. The original Act of incorporation gave the fellows an unrestricted right of electing into their number whom they might think proper, "and no person has, or can, by any by-law or regulation of the college, acquire any inchoate right of admission into this order." The fellows have lately admitted several of the licentiates into their association;

> "and it may be reasonably expected that the jealously which has for a long time disturbed the harmony of that highly respectable profession, will gradually abate, until at length the manners, virtue, and talents of the man will be deemed in him a higher recommendation to the good opinion of his competitors, than the mere circumstance of his having cultivated these talents within the walls of certain buildings, or on the banks of a certain river." (P. 53.)

The difference between the London and country licentiates consists in the former requiring the consent of a corporate assembly of the college, the latter requiring only the concurrence of the president and three of the elects. Mr. Willcock doubts the legality of the partial licences, which the college were formerly in the habit of granting, to practise in certain complaints only. The only other class of physicians recognised by the law are those who have obtained a degree in physic at Oxford or Cambridge: the lowest degree, that of bachelor, is sufficient to satisfy the terms of the statute.

> "In Oxford the degree of bachelor of physic may be now obtained in the thirty-first term, and that of doctor at the expiration of three years from the time of taking the degree of bachelor. In Cambridge, the degree of bachelor cannot be obtained until the candidate has entered his sixth year, and resided nine terms. A doctor of physic must be a bachelor of five years, standing." (P. 56.)

SURGEONS. It was once thought that the sole office of the surgeon was to use the knife, and to apply ointments and external medicaments: but this distinction cannot be supported, as many diseases are considered exclusively surgical, for the cure of which internal remedies are necessary; and the surgeon has an undoubted right to prescribe medicine, as auxiliary to the removal of all surgical complaints. The surgeon may make and compound all medicines applicable to the diseases submitted to the superintendence of his branch of the faculty; and he may either administer them himself, or prescribe what he thinks proper to be administered by others.

"There is, in fact, but one class of surgeons, who are legally entitled to practise in this kingdom, the members or licentiates of the college of Surgeons. The statute 3 Hen. VIII. is, however, still in force, though it has been generally regarded as obsolete, inasmuch as there is no instance of any person having obtained a licence under it for several centuries. On this statute alone can any punishment be inflicted on persons for practising surgery without licence in any part of the kingdom, except within London and Westminister, and seven miles around these cities."* (P. 58.)

From an erroneous idea that the original corporation of surgeons was dissolved by the sudden death of the master, on the day of election, a charter was obtained in the 40th year of the reign of Geo. III.*

"As the statute 18 Geo. II. operated to legalise the illegal exclusion of the charter of Charles I., none can practise surgery within London and seven miles around until examined and admitted by the college of surgeons; but there may be two classes of surgeons throughout the rest of the kingdom.

"First, the members of the college of Surgeons, who may practise in every part of his Majesty's dominions; and secondly, the surgeons licensed under the 3 Hen. VIII., who may practise within any particular diocese in which they are licensed, except within London and Westminster, and seven miles around these cities." (P. 64.)

As it has been said of physic, so every man is, by the common law, entitled to practise surgery, if competent. Two classes of judges of that competency have been appointed by statute: the examiners of the Surgeons' company, and the ordinary of the diocese, or, in his absence, the vicar general, with such as he is empowered to associate with him.

"The office of each class of examiners is inquisitorial and judicial. They must perform their duty with impartiality. They must approve every man whom, on examination, they find sufficient: and they will be guilty of a breach of that confidence reposed in them by the legislature, if they approve any one who appears to them to be insufficient." (P. 64.)

The examiners alone have a right to vote for the admission of members. Every person approved of by the majority of the examiners present (and four only are necessary), before two of the governors, is entitled to claim admission. If the examiners refuse to examine a person who has sufficient testimonials of qualification, he may obtain a writ of mandamus, to compel them to do their duty.

"The college has, from time to time, published information as to the testimonials which they require from persons who seek an examination; but these rules are, like those of the college of physicians, directory only, and not obligatory. Inasmuch as they appear to be reasonable, and point out a proper series of studies, the court will be at all times inclined to support them: but it may be stated without qualification, that no body of men to whom a special power is delegated can transfer the exercise of it to others; and that no corporation can by any means impose a qualification on the parties entitled to admission into it, or to an examination preparatory to such admission, which is not imposed by the statute, custom, or charter, on which it is founded. The court of examiners is investigated with a power which they are required to exercise, of examining every person desirous of practising as a surgeon. It may with much propriety inform those who may think proper to present themselves of the nature of the acquirements which they will be expected to possess; but as to the persons and places under whom and in which they may be supposed to have attained them, their rules cannot be obligatory. Should any person to whom an examination had been refused, inform the court of King's Bench that the course of his studies and observations had for a reasonable time been such as to induce a fair presumption that he was competent to sustain an examination by these officers, and that he had informed them of these facts, I doubt not that the writ would be allowed to issue, although it did not appear that he was within the terms of the regulations published by the college. But I doubt much whether such a case is likely to occur, as long as this body is content to adhere to the regulations which they have lately published in this respect.

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* P. clxxxviii.

" Every one desirous of practising in any other part of England than within seven miles around London and Westminister, and who has not been admitted by the college of surgeons, must, before he takes upon him to exercise that science in any diocese within the realm, be examined and approved by the bishop of the same diocese; or, if the bishop be out of the diocese, by his vicar-general; either of them calling to him such expert persons in the faculty as his discretion shall think convenient, and giving his letters testimonial under his seal to him that they shall so approve. If the applicant be approved by the majority of these examiners, he is entitled to claim the proper testimonials, for which, after refusal, the Court of King's Bench would afford him a remedy by issuing its mandamus." (P. 65.)

The proper practice of APOTHECARIES consists in preparing and dispensing medicines prescribed by the legally-recognised physicians, and in applying or administering the same.

"They are also at liberty to administer medicine of their own authority, and without the advice of a physician. It is not usual, however, for them to prescribe medicine to be prepared and supplied by others: but though this is understood to be the peculiar privilege of the physicians, it might be very difficult to make out a case of violating the statute of 14 Hen. VIII. against an apothecary, by merely proving that he had written a prescription, and received such fee as is usually paid to a physician, provided that it did not purport to be the prescription of a physician; and though no person is bound to prepare the medicine prescribed, I am not aware of any penalty incurred by compounding it." (P. 67.)

Two classes of apothecaries are recognised by law: the licentiates of the Apothecaries' company, and a temporary class, such as were in practice on the 1st day of August, 1815. No one can practise as an apothecary in England or Wales, until he has been examined by the court of Examiners of the Apothecaries' company, or the major part of them, and has received their certificate of his being duly qualified to practise as such, unless he were in practice on the 12th day of July, 1815, and also upon the 1st of August, 1815; and no person has a right to claim, or can be admitted to, an examination, until he is twenty-one years of age, and has served an apprenticeship of not less than five years to an apothecary, and produced testimonials of sufficient medical education and of good moral conduct. Non-compliance with these provisions of the Act renders the certificate void; and a false statement of the circumstances required, though not amounting to forgery, even if supported by falsified documents, is a grievous and punishable misdemeanour.

"As evidence of a sufficient medical education, 'to the satisfaction of the court of Examiners,' that court has required the production of certain testimonials mentioned in another part of this work: and although they cannot make rules in this respect wholly unreasonable, they have a far more extensive authority on the subject than the other medical corporations; having the express sanction of an Act of parliament for the exercise of their opinion on the sufficiency of the testimonials." (P. 69.)

If the court of Examiners refuse to examine a qualified person, the Court of King's Bench would compel them to do their duty. No person can act as an assistant to any apothecary in compounding or dispensing medicines, without a certificate of his fitness for that employment from the court of Examiners, or from county examiners, or unless he had acted as an assistant on the 12th July, and the 1st August, 1815, or had then served an apprenticeship of five years to an apothecary.

"The exemption in favor of persons in practice before the 1st August, 1815, extends only to persons who had been in practice as apothecaries; and the statute having in the fourth section described the proper business of apothecaries, none are entitled to the benefit of this exemption who were not, before or on that day, capable of performing such duties. And although the court will not inquire into the degree of skill and capacity of the practitioner in this respect, it will admit evidence showing a total incapacity to perform such duties, as it is conclusive evidence that he had not practised as an apothecary.

"And for the same purpose, although the court will not examine into the extent of practice before or on that day, it will examine whether the practice was in the character and according to the manner of an apothecary; for otherwise every surgeon, dentist, and druggist, and indeed every person who had, either for or without reward, in any manner taken upon him to administer medicine, or to prepare it according to a prescription, would be entitled to practise in all respects as an apothecary." (P. 72.)

CHEMISTS and DRUGGISTS. As, in the course of time, the apothecaries have established as a right that which was, at first, considered an encroachment on the department of the physician, the administering of medicine to the sick of their own authority, so the druggists seemed to have acquired a right of compounding physician's prescriptions, which was at first an infringement on the privileges of the apothecaries.

ACCOUCHEURS and MIDWIVES. Any person may act as an accoucheur or midwife, but their acting in this capacity will not warrant their interfering in the cure or relief of any diseases antecedent or consequent upon childbirth.

The administering of medicine gratuitously is not a violation of any law relative to the medical profession.

In the third chapter, Mr. Willcock mentions the various penalties to which unqualified persons are liable, for practising physic or surgery. He is of opinion that an action will lie at the suit of the college of Physicians, although the practice proved be surgical, unless the defendant, by his plea, show that he is legally entitled to practise as a surgeon, by specially setting forth his licence by the college of Surgeons.* The statute 32 Henry VIII. has expressly declared that surgery is a special member of physic, and within the legitimate range of the physician's vocation. Every person, except a physician, is liable to a penalty of five pounds for *every time* he may practise surgery in London or Westminster, or within seven miles of London, unless he has been admitted to practise by the college of surgeons. Every person, except a physician, is liable to a penalty of five pounds *for every month* he may practise in any other part of England, unless he has been admitted by the college of Surgeons, or approved of by the ordinary, or, in his absence, the vicar general of his diocese. The Act 55 Geo. III. c. 194, imposes penalties on unqualified persons acting as apothecaries or assistants to apothecaries. In an action for the penalty, the company must prove one act of practice as an apothecary.

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* In the case of the College of Physicians v. Harrison, the court held a contrary opinion.

" It is necessary that the declaration should allege that the defendant had not obtained the necessary certificate, and that he was not in practice on the 1st of August, 1815. But as these are negative averments, it is not necessary for the plantiff to prove either of them, as it is incumbent on the defendant to prove, either that he has obtained the certificate, or that he was in practice on that day. And it is necessary for him to give reasonable evidence that he was in practice on the 1st August; but this may be fairly inferred from proof that he was in practice a short time before that day, unless the plantiff show that he had discontinued his practice during the interval." (P. 84.)

The defendant's practice must have been as an apothecary; therefore it is insufficient for him to show that he had acted as a druggist, or that he had gratuitously taken upon him to act as an apothecary.

The fourth chapter, entitled " Malpractice in Medicine," defines the various acts coming under that denomination, and describes the power of inflicting punishment for such acts, possessed by the physicians, surgeons, and apothecaries.

The next and brief chapter is concerning the civil responsibility of medical practitioners for want of due skill and attention, and for trying experiments in medicine and surgery. By experiments, Mr. Willcock does not imply the mild and dangerous practices of rash and ignorant practitioners, which come under the head of want of skill and knowledge; but of the deliberate acts of men of considerable knowledge and undoubted talent, differing from those prescribed by the ordinary rules of practice, but which they, in their judgment, believe are likely to benefit the patient. Even in this case, however, the patient must be informed that it is an experiment, and then the practitioner is not answerable in law for the result, although it be contrary to expectation, and attended with an injury which has not generally followed the ordinary mode of practice: but if the practitioner perform such experiment without the knowledge and consent of his patient, he is liable to damages.

REMUNERATION OF MEDICAL PRACTITIONERS. It has been recently determined that the fee of a physician is honorary, and that it cannot be recovered by an action at law; and that every person professing to act as a physician is precluded from assuming a different character, as that of a surgeon or apothecary, for the purpose of recovering his fees, although he may, in fact, be a surgeon or apothecary, or a person who had no right to practise as a physician. In the case of Dr. Chorley v. Bolcot, which is related in the second part of the work, it was ruled that a custom, in the defendant's neighbourhood, to pay physicians at a certain rate, is immaterial, and gives them no greater right to bring the action than in places where no such custom is known. It appears that, until the decision in this instance, all the statutes and cases concurred in supporting the right of the physician to maintain an action for his fees.

Surgeons are entitled to recover a reasonable remuneration for their care, attendances, skill, labour, medicines, and applications in surgical cases.

> " It has not been required of a surgeon to prove that he is legally entitled to praetice, the defendant's having employed the plaintiff in that capacity has been thought sufficient to enable him to support the action, unless the want of qualification is shown. It cannot, however, be necessary to plead this objection especially; for, inasmuch as it is an essential part of the contract that the plantiff should possess the character in which alone he is entitled to recover, the defendant may certainly show, if he can, that he has not been admitted either by the college of Surgeons, or by the ordinary of the diocese. But, inasmuch as this would be attended with great difficulty, it is far more prudent to take the objection in pleading, which, as it is a negative averment, would impose on the plaintiff the necessity of proving his qualification." (P. 113.)

The surgeon is entitled to a compensation for his medicines, as well as for his skill and attention, when such medicines have been applied in cases within his proper province. But if he infringe upon the practice of the physician or apothecary, his conduct being illegal, he has, of course, no remedy for the recovery of any remuneration for his service. A legally-constituted apothecary has the same remedy for the recovery of his fees as a surgeon.

> " It may, therefore, be safely laid down that an apothecary may charge for attendances; but that if he do so, he must charge for his medicines at such a rate as to remunerate him merely for their intrinsic value, and his skill and trouble in compounding, and to exclude any compensation for his attending to apply or administer them." (P. 118.)

Towne v. Gresley, and Hanley v. Henson, are both cases which confirm this opinion.

PROTECTION OF MEDICAL MEN. In cases of defamation or libel, a regular practitioner is not bound to prove that he has sustained actual injury or loss; the law will presume that injury must arise from the propagation of such calumny. The law will not require the plaintiff, in an action for libel or slander, to prove the falsehood of the charge against him; it will allow the defendant to prove the truth of the imputation which is charged to be libellous or slanderous, provided that he has given due notice, so that the plaintiff may have an opportunity of producing his evidence to refute or explain it.

"Another ground of defence against an action for libel or slander is, that the imputation was not malicious; and this is admissible as well on an indictment as on a civil proceeding. For, though the law, to prevent the excitement and disturbances arising from defamatory imputations, however true, will not in general admit the truth of the charge to be pleaded to an indictment which is supposed to be the prosecution of the king, and founded upon the necessity of securing the quiet and peace of the nation, it will permit the defendant even on an indictment to produce any evidence tending to show that the imputation was not in legal acceptation malicious." (P. 121.)

If the defendant can satisfy the jury that the alleged libel or slander was not malicious, he is entitled to a verdict in his favor. Confidential communications are not slanderous. If, therefore, it appear that the calumny was contained in a letter written, or words spoken in confidence, to a person who had consulted the defendant with relation to an intention to apply to the plaintiff professionally, or to a person so related to, or connected with, the defendant, as to justify his dissuading him from consulting the plaintiff as a professional man, it is merely necessary for the defendant to show that he conscientiously believed the imputations to be just, and such as a prudent man would use for that purpose. But

"a confidential communication defamatory of another is legal only to the extent in which it is justified by an intention to benefit the person to whom it is made; and if abused for the purpose of injuring the person calumniated, is more severely to be punished than public defamation, inasmuch as it deprives the accused of the opportunity of being heard in his defence, which is afforded him by making the charge public." (P. 122.)

Fair criticism, however severe or calumnious, is not punishable as malevolent slander; but it must be confined to its proper subjects, public acts and public writings. The critic is not bound to substantiate the correctness of his observations, but he is liable to punishment for either unfairly stating the facts which he pretends to criticise, or for introducing private character as the subject of improper remarks. The cases of Macleod v. Wakley, Cooper v. Wakley, and Dunne v. Anderson, are to this point.

The privileges of medical men in respect of insane persons, in respect of employment, exemption from serving on juries and in offices, and from bearing arms, form the subjects of the eighth chapter.

The law relating to the propagation of contagious diseases, and other injuries to the public health, are next considered. " Any unnecessary exposure of persons infected with smallpox, is a nuisance punishable at common law, whether such persons become infected by communication with others, or their disease originated in inoculation."

The first part of the work concludes with some interesting remarks " on Dissection." Any medical man, or other person, concealing the fact of a body having upon it such *indicia* of violence, or receiving a body under such circumstances as to raise a reasonable suspicion that the person had been wilfully destroyed, is regarded by the law as an accomplice in the crime.

We can only name the contents of the second part of the volume. The various statutes, charters, by-laws, &c. relative to physicians, surgeons, and apothecaries, are given at length; and many amusing and very instructive actions at law are reported upon different subjects connected with the medical profession, which cannot but be important and interesting to those of our brethren who may be forced into the thorny path of litigation, either as individuals or corporate bodies, inasmuch as they embrace the opinions of judges, arguments of counsel, and decisions of juries, upon most professional points that are likely to become the subjects of dispute.

Some valuable parts of this work we have been compelled to pass over, but we have drawn enough from the information it contains to convince every medical practitioner, that this is one of the books which his curiosity and interests will lead him to peruse; and that in Mr. Willcock he will find an able and intelligent legal adviser. The College of Physicians would probably not have had to lament their mortifying defeat in their contest with Dr. Harrison, if the argument which Mr. W. acutely suggests had been urged upon the trial.

Practical Observations on Leucorrhœa, Fluor Albus, or " Weakness:" with Cases illustrative of a new Mode of Treatment. By GEORGE JEWEL, Member of the Royal College of Surgeons; one of the Accoucheurs of the St. George's and St. James's Dispensary, and to the Middlesex General Dispensary; Lecturer on Midwifery and the Diseases of Women and Children, &c.—8vo. pp. 108, Wilson, 1830.

ALTHOUGH leucorrhœa is one of those diseases which very often does not materially affect the health of the patient, and perhaps never endangers life, it is still, from its difficulty of cure, an *opprobrium medicorum.* The profession must therefore feel much indebted to any practitioner that is fortunate enough to hit upon a more efficacious remedy than we yet possess for a complaint which perplexes the physician, and annoys the patient by its obstinate continuance. The chief motive which Mr. JEWEL has in view in the publication of the present volume, is to suggest a remedy which he has found remarkably successful. The pathological view which he takes of vaginal discharges he believes to be " somewhat novel;" but it will be found, upon reference to Dr. DEWEES,* that very similar notions have been before entertained. The principal feature in the treatment here recommended is, we believe, entirely new. Mr. Jewel very properly laments that the opinion too widely prevails that vaginal discharges have their origin in constitutional or local debility, and that hence a complaint of this kind is denominated a " weakness." The employment of this term leads to practical error; for, if we investigate the pathology of leucorrhœal discharges, we shall find that they most commonly have their origin in local excitement. To this part of the subject the author has especially attended, and he believes that the vaginal discharge is commonly the result of some direct local stimulus. Dr. Dewees believes that leucorrhœa has also invariably a local origin. In this opinion our own experience leads us to concur.

Much diversity of opinion exists among writers as to the precise structure which is primarily affected in leucorrhœa, and which may be considered as the seat of the disease. Mr. Jewel thinks that the discharge seldom issues from the uterine cavity; and here again he is supported by Dr.

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* DEWEES on the Diseases of Females, chap. xiii.

Dewees, who states, in the work to which we have just referred, "We are of opinion that this discharge rarely proceeds from the cavity of the uterus, not even in its most aggravated forms; and when it does, it must always be looked upon as the most difficult of management." (P. 229.) It has been proved by BICHAT and others, that the uterus is lined with a mucous membrane, and like other mucous membranes, when in a state of morbid action, it may occasionally throw out a superabundant quantity of mucus, or even pus.

"By attending to the following circumstances, we shall, in some cases, be able to ascertain whether the discharge issues from the uterine cavity or not. When the seat of the disease is in the vagina, or cervix of the uterus, the discharge commonly appears during the night, notwithstanding the patient is confined to the horizontal position; but, if in the cavity of the womb, it is generally suspended: a piece of sponge, therefore, being introduced into the vagina at bedtime, will occasionally determine the question; for if the discharge issues from the surface of the vagina, it will become saturated with it." (P. 9.)

We give this passage from Mr. Jewel, but he should himself have inserted the inverted commas, as it is taken almost literally from Dewees, p. 234.*

In investigating the pathology of leucorrhœa, there are three states or conditions to be regarded, says Mr. Jewel, as being almost invariably the immediate causes of the disease in question: namely, irritation, congestion, and inflammation of the subacute or chronic kind. We question whether the distinction which is here presumed to exist between a state of "irritation" and one of "sub-acute inflammation" in leucorrhœa, can ever serve us in practice, or be even so satisfactorily described by words, as to induce us to believe that it is not more imaginary than real.

"From a strict pathological investigation into the numerous cases of leucorrhœa which have fallen under my observation, I have been induced to believe that, when the morbid secretion is abundant, and the local symptoms severe, one uterine affection gives rise to the disease more frequently than any other, namely, a subacute or chronic inflammation of the cervix uteri. Even when the vaginal surface appears to have been the tissue primarily affected, we shall find, in almost all protracted cases, the cervix uteri also seriously involved in the mischief. Mr. Burns, an authority which cannot be quoted without respect, alludes to this part of the subject by observing 'that, when the discharge is very opaque, and attended by considerable pain in the back and loins, there is reason to think that the cervix uteri is in a state of irritation; and by examination may be found tender to the touch, the mouth soft and enlarged a little. This state does not constitute disease of structure, though it may lead to it, but it consists merely in an affection of the glands. After the tender state is nearly subdued, and the discharge has become more chronic, the cold bath, tonics, and astringent injections are proper.' Here it is evidently meant that, as long as the tender state of the cervix uteri continues, we ought not to employ those means which are usually had recourse to with a view of giving tone and vigour to the system, which, in fact, is an admission of the inflammatory character of the disease. I have scarcely ever seen an instance of profuse leucorrhœa without more or less tenderness of the cervix uteri. I have also reason to know that very many of such cases are mistaken for carcinoma uteri, and that, in consequence, no remedies are prescribed, or a very inefficient mode of practice is adopted." (P. 24.)

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* We refer to the Philadelphia edition of Dr. Dewees' work.

Mr. Jewel has seen more than one case where a morbid affection of the cervix uteri had been pronounced by eminent practitioners to be carcinoma, but in which the disease had been afterwards totally eradicated, the uterus again taking on its healthy functions, and the woman bearing children as before.

"To practitioners unaccustomed to examining into the state of the os and cervix uteri, it may not be irrelevant to observe that the form of the os uteri occasionally varies. In some females, instead of its being a small transverse opening, it will be found of a circular form, and now and then so small as scarcely to admit the point of a probe, whilst in others, who have had many children, the point of the finger can be easily introduced; and instead of being uniform, and smooth or flat, it not unfrequently becomes projecting, having an anterior and posterior lip." (P. 32.)

We are very judiciously warned not too hastily to consider scirrhus an incurable disease, or that it so exists throughout the system as to become developed in one part when eradicated from another. Dr. DENMAN, when speaking of cancer in the uterus and breasts, says, when the former is the seat of the disease, the first symptom is usually inflammation; and, if this can be effectually removed, by strict abstinence, by bleeding occasionally, by antiphlogistic medicines, and by constant repose in the horizontal position, he has often persuaded himself that the disease has been prevented or removed. Dr. CLARKE also observes that, by a strict attention to management, and an unwearied perseverance in the means suggested, all cases of the complaint may be relieved; in many, the further enlargement of the tumor, or progress of the thickening, may be prevented; and, if he were not afraid of deceiving himself, or of deceiving others, he would venture to express a belief that, in a few instances, the disease has altogether subsided. Mr. Jewel allows that other judicious and active measures may control such affections, whether they happen to be genuine cases of incipient scirrhus, chronic inflammation, irritation, or simple enlargement from congestion; but he assures us that there is no remedy which can be employed with a greater prospect of success than the nitrate of silver, applied immediately to the part affected. As the principal purpose of this work is to point out the manner in which this remedy is to be employed in conjunction with others, we shall pass on at once to the sixth chapter, in which the treatment of leucorrhœa is considered.

Although Mr. Jewel places the most perfect reliance in the nitrate of silver, he would not exclude what are termed general principles of treatment. If a female labours under leucorrhœa who has a full pulse, determination to the cerebral vessels, thirst, coated tongue, and other symptoms of excitement or fever, bleeding, purgation, and a vegetable diet may remove the complaint, without the employment of particular remedies. Until these plethoric symptoms are removed, local remedies would be injudicious, with the exception of local ablutions. Water alone for this purpose is said to be "very nearly, if not totally, a useless practice. If, however, one part of vinegar be added to two parts of water, and the whole made lukewarm, it will be found a useful and an agreeable auxiliary." We know no objection to the addition of the vinegar, but we are quite certain that the advantages arising from ablution with simple water are here much underrated.

We believe Mr. Jewel is correct in stating that, although general bloodletting will diminish arterial action, it seldom affords relief to the patient under the ordinary circumstances of vaginal discharge. Cupping glasses should be applied to the loins, or leeches to the groins. If the constitution has suffered materially from a long continuance of the disease, we should not take away more than four or six ounces of blood, if, indeed, bleeding be admissible at all in such cases. To relieve the utero-vaginal pains, and procure rest, hyoscyamus or conium arc to be given.

> "In all leucorrhœal or uterine affections, whether of the acute or chronic kind, absolute rest of the body is indispensable. The patient should remain, during the greater part of the day, in the

horizontal position, either on a mattress or sofa; but it must be observed, that, when there is a great disturbance in the nervous system, a moderate degree of passive exercise, such as riding in a carriage, will prove highly beneficial in its tranquillization, and in restoring the functions and general health." (P. 70.)

This passage appears to us to be incautiously worded; for we can scarcely believe that Mr. Jewel seriously means to maintain the doctrine included in it. It would be absurd to attempt to confine "*all*" patients labouring under leucorrhœa, in a state of absolute rest; and if they would submit to so unnecessary an injunction, we could not with propriety enforce it. In the great majority of cases, moderate exercise is undoubtedly necessary, and such a degree of it may be safely enjoyed as will benefit the general health of the patient, without at all aggravating her local complaint.

Purgatives are generally required in the treatment of leucorrhœa. Cold general bathing is a popular remedy, where a loss of tone in the system exists; but Mr. Jewel judiciously observes, that when the female is much enfeebled by the discharge, where great fatigue is induced by slight exertion, and where she breathes with difficulty, the cold bath must be used with caution, particularly if the secretions of the digestive organs have become obstructed. In cases of acute inflammation of the cervix uteri, the hip-bath, of a temperature from ninety to ninety-five degrees, will generally relieve. Cantharides is sometimes a very decisive remedy in leucorrhœa, but, "notwithstanding a train of symptoms of a very distressing nature may be produced by its exhibition, it sometimes exerts no control over the disease in question. Within the last six months I have seen two cases, in which strangury had been induced without any good result." Of this remedy Dr. Dewees thinks very highly; but the tincture of cantharides he employs is fifty per cent. stronger than the ordinary tincture of the shops.* It is notorious that but little dependence can be placed upon the various local astringents that are in common use in cases of leucorrhœa. Iodine has as yet been but little employed in this disease, but Mr. Jewel states that, in almost all the cases in which he has employed it, its effects have been marked and decisive.

After briefly mentioning the treatment commonly had recourse to in leucorrhœa, and adverting to those general principles, the observance of which is essential to the success of the remedy Mr. Jewel especially relies upon, he observes, that

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* Dewees, *loco citato,* p. 240.

"In the application of the nitrate of silver to the surface of parts, in a morbid or unhealthy state, a most obvious change is almost immediately produced, which (although we are incapable of explaining it philosophically,) eventually terminates in healthy action. One circumstance, more particularly, led me to adopt the use of the nitrate of silver in the cure of these diseases, namely, the extensive and healthy changes which I have known to result, from the application of this agent to the different mucous tissues, when their secreting surfaces had taken on a disordered or unhealthy action, as in those of the fauces and larynx. After extensive trials and observation, I can confidently say, that its effects are as conspicuous in cases of vaginal discharge, not dependent on disorganized structure, as in the various local diseases in which it has hitherto been employed, with so much success. It has been said, that checking the vaginal discharge is prejudicial: this opinion is at variance with my own experience; but I would employ the nitrate of silver, not merely with a view of arresting the discharge, but to produce a perfectly new action, or new excitement, in the part from which the secretion has its origin.

"The mode I have adopted in the application of this agent, has been either to conceal it in a silver tube, as it is employed in cases of stricture, (except that the tube should be adapted to the size of the argent. nitrat.) or in the form of solution, in the proportion generally of three grains to the ounce of distilled water, the strength being gradually increased. A piece of soft lint may be moistened with the solution, and introduced, for a short period, into the vagina several times in the day; or a bit of sponge, firmly and neatly tied to the end of a slip of whalebone, may be passed into the vagina, up to the os and cervix uteri, well saturated with the solution. This can easily be effected by the patient herself. It is necessary that the application should be frequently repeated, or no permanent benefit can be expected. Should it become requisite to employ a strong solution, and to apply it to a certain part, or ulcerated surface, it can be accomplished with a degree of nicety, by means of a camel's hair brush, introduced through the speculum, or dilator. This, however, can only be done in the absence of excoriations, or tenderness, as the introduction even of a common syringe sometimes produces a considerable degree of pain and irritation; independently of which, some females will not submit to the introduction of any instrument. In married women, there is not the least difficulty in using the dilator, neither does its introduction, under common circumstances, occasion any degree of pain. By means of this instrument, the condition of the cervix uteri and vagina can be readily ascertained.

"A few remarks upon the use and choice of the syringe, when injections are employed. will not, I trust, be considered a digression. It must be obvious, that if the act of throwing in the injection be attended by any muscular effort, the injected fluid cannot reach its destined point, namely, the neck of the womb, and upper part of the vagina. In using the common straight syringe, a degree of bodily exertion cannot be avoided, whatever may be the position of the patient, and consequently the operation must prove very inefficient, if not altogether useless. The pipe of the syringe ought to be curved, so that, when introduced, its point may come in immediate apposition to the os uteri, and the patient should place herself in the recumbent posture, in which position she should remain at least several minutes after the syringe has been withdrawn. The principal advantage in injecting the fluid is, that if any superficial ulcerations exist, they will be readily healed.

"It is very satisfactory to observe, that the nitrate of silver, when judiciously used, in either of the forms above recommended, gives no pain nor irritation, at least no more than is occasionally produced by the injection of any common astringent." (P. 81.)

Several cases are detailed, which appear to show the good effects of the plan recommended. Mr. Jewel has also tried the same remedy in cases of gonorrhœa in the female, with much success; and has found that it may be employed, with perfect safety and advantage, during the presence of inflammatory symptoms.

A Treatise on the Venereal Diseases of the Eye. By WILLIAM LAWRENCE, F.R.S.; late Professor of Anatomy and Surgery to the Royal College of Surgeons in London; Surgeon to St. Bartholomew's Hospital, and Lecturer on Surgery at that Hospital; Surgeon to Bridewell and Bethlehem Hospitals; consulting Surgeon to the London Fever Hospital, and late Surgeon to the London Ophthalmic Infirmary, &c.—8vo. pp. 387. Wilson, 1830.

(Continued from p. 342.)

BEFORE we proceed to the consideration of the second part of Mr. LAWRENCE's work, we must for a moment refer to the subject of our first analysis, for the purpose of adducing additional evidence in support of our opinion of the superiority of the stimulant plan of treatment over the antiphlogistic in gonorrhœal ophthalmia. In the last Number of the Edinburgh Med. and Surg. Journal, the reviewer of Mr. L.'s work states, that he has been informed by Dr. SHORTT, who had occasion to treat the purulent ophthalmia, on the most extensive scale, in the military hospitals of Egypt and Sicily, that he carried personally the depleting system of treatment to the greatest extent, to 60, 70, 100, and even 200 ounces, and often without the smallest effect in arresting the progress, or mitigating the severity of the disease. In most of the cases the cornea gave way, and allowed, the iris to protrude, where there was no want either of energy, of promptitude, or of extent, in the use of the antiphlogistic measures. The reviewer says that, "pathologically and therapeutically, gonorrhœal ophthalmia is quite the same as the puriform epidemic disease, and the remedies which are beneficial in the latter promise also success in the former." We are gratified to find our highly respectable contemporary agree with us in opinion upon this point.* Dr. Shortt also remarked that those patients who underwent the severest depletory measures were invariably longer in recovering sight, than those treated with more moderation; and in such subjects it was only when the constitutional powers began to rally, that the specks and opacities of the cornea began to disappear, and the ulcerations to heal. These unfavorable results led Dr. Shortt, with others, to employ the nitrate of silver in solution, with tonics and stimulants; and since the adoption of this practice, he has effected a much larger proportion of cures.

We now arrive at that part of Mr. Lawrence's work which is dedicated to "Syphilitic Diseases of the Eye." Under this head, *syphilitic iritis,* and *syphilitic ulceration of the eyelids,* are considered. The iris is liable to inflammation from various causes, of which syphilitic infection is, perhaps, the most frequent. The several forms of the complaint are alike in essential characters; they differ only in modifications of the phenomena, and in concomitant circumstances. Hence a description of the origin, progress, and various effects of syphilitic iritis will embrace nearly all the points that could be included in a general history of the affection.

General character of Iritis. The chambers of the aqueous humor, having a smooth membranous lining, which exhales and absorbs a watery fluid, present a striking analogy to the serous cavities. A similar correspondence is observed in their diseases; inflammation being generally attended in the former, as it is in the serous membranes, by the effusion either of albuminous fluid or of coagulating lymph. The peculiar structure and the situation of the affected part will, perhaps, account satisfactorily for our not being able to recognise in iritis the four circumstances, the combination of which is usually considered to constitute the state of inflammation, viz. swelling, redness, heat, and pain. The inflammatory process, however, is unequivocally characterised by one of its effects; that is, by effusion from the vessels of the part. The new matter thus produced, which is found under various circumstances and appearances, is called indiscriminately by the not very precise term of *coagulable lymph*. Besides changing the colour and general appearance of the iris, it impairs and destroys its motions, rendering it at first sluggish, and afterwards motionless; it causes adhesion of the iris to the surrounding parts; it alters the form and size of the pupil, contracting or entirely obstructing that aperture, with more or less injury to, or complete loss of sight. Thus iritis belongs to the class of adhesive inflammations. The increased action in the vessels of the part, by which the changes just enumerated are produced, is attended by an enlargement of the vascular trunks and ramifications in the sclerotic coat, and consequently by preternatural redness of the eye, to which are usually added increased sensibility to light, and lachrymal discharge.

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* Vide our last Number, p. 342.

Change of colour in the Iris.

"The change of colour which the organ undergoes, is one of the most striking characters of iritis. A light coloured iris assumes, under inflammation, a yellowish or greenish tint; occasionally, it is distinctly yellow; and, if the eye be blue, a bright green is sometimes seen. Generally, however, the tint, whether yellow or green, is of a dull and muddy cast, and darker than in the sound state. In case of the iris being naturally dark-coloured, it presents, when inflamed, a reddish tinge. Together with these changes of colour, there is a complete loss of its natural brilliancy; it becomes dull and dark, and the beautiful fibrous arrangement, which characterises it in the healthy state, is either confused or entirely lost. These changes, which are rendered particularly obvious by the contrast between the inflamed and the sound eye, commence in the pupillary margin. In an early period, the very edge of the pupil alone may be affected; the internal circle then becomes altered in colour, and thickened; and afterwards the change spreads gradually to the external or ciliary edge of the iris. This alteration of colour is produced by effusion into the texture of the organ; and the particular tint is such as would arise from blending with the natural colour of the iris that of the lymph, which is yellowish or brownish." (P. 122.)

Effusion of Lymph; its various appearances. The deposition of lymph takes place under various modifications in syphilitic iritis. The effusion into the texture of the iris generally causes the changes of colour just described. It may be deposited in a thin layer, covering a larger or smaller surface. In different-coloured irides, different appearances are produced by the effusion of lymph. When the inflammation is very active, and has been neglected or improperly treated, the lymph is sometimes secreted so abundantly as nearly to fill the anterior chamber. Under violent inflammatory action, blood itself is sometimes effused. Lymph may be poured out from the margin of the pupil, or the uvea, so as to agglutinate them partially or generally to the capsule of the crystalline. A mass of lymph sometimes fills the pupil.

"More commonly, a thin greyish web or film stretches across the opening, which loses its clear black colour, and has a cloudy appearance. Lymph may be effused in considerable quantity into the posterior chamber, and either make its way through the pupil into the anterior chamber, cause a bulging of the sclerotica, or penetrate that membrane, and form a tumor under the conjunctiva." (P. 135.)

"The external swelling in these cases has sometimes a yellowish appearance on its most prominent part, from which, in conjunction with the intense redness and violent pain of the eye, it has been supposed that suppuration of the globe had occurred; and the part has been punctured, under that notion. I once did this in the case of a lady, whose eye was destroyed by syphilitic inflammation: neither matter nor lymph escaped from the opening." (P. 137.)

Mr. Lawrence believes that suppuration never takes place in syphilitic iritis; that the inflammation, however violent, is always of the adhesive kind, and that the changes to which it leads are produced by the effusion of lymph.

Motions of the iris, and state of the pupil.

"The motions of the iris must be seriously impaired by the changes just described, more particularly by the interstitial effusion of lymph. It moves sluggishly at the commencement of the inflammation; and, when effusion has taken place, its movements are entirely suspended, the preternatural connexions by adhesion concurring with the change of structure in producing this effect. The pupil, consequently, cannot exhibit the ordinary variations in size; it is contracted, and it becomes smaller and smaller in the progress of the affection. At the same time the effusions of lymph and the adhesions change the figure of the opening, rendering it angular, and often extremely irregular. Together with other changes, the pupil sometimes undergoes an alteration in situation, being apparently drawn upwards and inwards, or towards the root of the nose. It may deviate in other directions. The margin of the aperture is thickened, and has a villous or spongy appearance in the beginning of the disease, presenting a strong contrast to the thin, sharp, and well defined edge which naturally belongs to it. The effusion of lymph into the aperture, which has been already noticed, destroys its clear black colour, and gives it a dull, cloudy appearance." (P. 141.)

Increased Redness of the Eye. In the commencement of the affection, the anterior part of the sclerotica exhibits a pale pink redness, and the vascular trunks, which lie on this membrane, are seen of a deeper pink tint under the conjunctiva, which is then unaltered. As the affection proceeds, the redness of the sclerotica, and the distention of its trunks, increase. In iritis of the most violent kind, all the external vessels of the globe are equally affected, giving to the entire surface an uniform fiery redness. Either a part or the whole of the iris may be inflamed.

State of the Cornea and Aqueous Humor.

"The phenomena of the disease shew that an intimate vascular connexion exists between the sclerotica and the cornea and iris, although we do not know much about the arrangements of their vessels in the healthy state of the organ. Hence it happens that active inflammation in either of the latter parts causes vascular distention and redness of the sclerotic, while inflammation originating in that membrane soon extends to them. Hence, when the sclerotica is inflamed, as it is in an acute attack of iritis, change may be anticipated in the state of the cornea. General haziness occurs at first; this is aggravated, as the case proceeds, and nebulous opacity comes on when the inflammation is violent and long continued. This change affects the cornea generally, in most cases; there may be more considerable partial opacity with the general haziness or nebula. Sometimes, but rarely, there is ulceration of the cornea. These corneal affections add to the imperfection of sight caused by the changes in the pupil. Under the existence of inflammation in the surfaces which secrete the aqueous humor, we might expect that this fluid would be altered in its properties, and become turbid. We have, however, no clear evidence on this point. In considerable and active inflammation of the iris, with the cornea remaining clear, we can see no change in the aqueous fluid: when the cornea becomes hazy or opaque, we can hardly expect to discern it." (P. 144.)

Intolerance of light and pain are, as might be expected, concomitant with iritis. The constitutional disturbance is very various. Iritis of the most acute kind is attended with severe febrile symptoms; with headach, restlessness, and want of sleep; with full and strong pulse, white tongue, thirst, loss of appetite, and costiveness. It often happens, however, even in cases that would be termed acute, such symptoms exist only in a slight degree, (Case xix.) or are entirely wanting, (Cases xii. and xx.) When iritis has attained its full developement, and continues, the iris swells, or appears to swell; that is, it approaches towards the cornea, becoming convex in front, diminishing the anterior chamber, and sometimes having its surface puckered and irregular. "Is this an actual swelling of the iris, real thickening of the part from interstitial deposition? or mere protrusion by the swelling of parts behind, by the effusion of lymph, or by aqueous secretion? Dissection has not yet elucidated these questions." If the progress of the affection be not checked, it does not remain limited to its original seat in the iris. Supposing it to go on without interruption, it passes from the ciliary circumference of the iris to the corpus ciliare, the choroid coat and retina, with increase of pain and fever, and ultimately with irrecoverable loss of vision, from change of structure in the retina. Ultimately simple iritis may become ophthalmitis, or inflammation involving the external and internal tunics generally. "The question naturally occurs, whether the inflammation, when thus propagated to the posterior tunics, presents in them the same characters as in its original seat; that is, whether it is attended by effusion of lymph?" Mr. Lawrence has never had an opportunity of dissecting an eye in this state of disease, nor are any such dissections recorded. Iritis, like other inflammations, varies in rate of progress and degree. Serious mischief may occur in a few days, or weeks may elapse without any permanent change of structure or injury of sight. Many of the cases detailed by Mr. Lawrence exemplify these facts.

Effects of Iritis.

"The effusion into the texture, or on the surface of the iris, like the interstitial deposition which produces swelling of other inflamed parts, is removed by absorption when the inflammation is at an end. Under favorable circumstances, that is, when the inflammation is recent, and proper treatment has been adopted, the iris may be completely restored, recovering its natural colour, brilliancy, and power of motion. This restoration may take place equally whether the organ should have been simply discoloured, or effusion of lymph should have taken plaee, either in a thin stratum or in tubercular masses." (P. 153.)

Adhesions of the pupil to the crystalline capsule often occur. From proper treatment, in an early stage, the slender threads of adhesion between these parts are sometimes detached, leaving behind (at least in some instances) black marks in the capsule, which Mr. L. believes are permanent. A tubercle of lymph effused on the edge of the pupil will produce a broader adhesion, fixing, perhaps, one third or one fourth of the circle. These changes must necessarily affect the figure and motions of the pupil; they often render it very irregular, and impair or destroy its motions. "Mere alterations of figure are not injurious to vision; which is just as good with the most irregularly-shaped pupil as with a circular one; and we often see perfect vision with great and permanent contraction of this aperture." It must be understood, of course, that the retina is uninjured, and that the pupil, however irregular or small, is clear. When considerable general effusion has taken place, and has been allowedto proceed uncontrouled for some weeks, permanent change is produced in the texture and colour of the iris. If the lymph thrown out into the pupil, and lying on the crystalline capsule, be not soon absorbed, it becomes organised, and forms an opaque adventitious membrane, adherent to the capsule and to the pupil.

"The opacity of this new production is greatest in the ce n and gradually shaded off towards the circumference. In the contracted state of the pupil, it fills the whole aperture; but, when the edge of the iris is withdrawn, it is surrounded, partially or entirely, by a clear black margin, and the iris is found to be attached to it by adhesions, which may be either close or in the form of short black threads. These adhesions sometimes divide the clear portion of the pupil into small roundish or irregular apertures. In such cases, the pupil does not change under variations in the quantity of light; it is usually necessary to apply belladonna in order to expose the clear part of the opening, and the adhesions which connect its margin to the adventitious membrane. If the effusion should have occupied the pupil and margin of the iris only partially, the adventitious membrane will be found towards one side instead of the centre, the edge of the pupil being fixed to it, and thus drawn out of its regular line, while the rest of the opening is natural. This state, which has been called imperfect closure of the pupil (*atresia iridis imperfecta,*) is attended with greater or less injury of sight. Although the patient may have no useful vision when the aperture is contracted, he may be able even to read if a little enlargement can be procured by the influence of belladonna." (P. 156.)

Complete closure of the pupil (*atresia iridis perfecta*) may occur; the communication between the two chambers is then destroyed, and the passage of light into the eye almost entirely intercepted, with corresponding loss of sight. When the inflammation has extended to the posterior tunics, although it should have been arrested by proper treatment, various degrees of impaired vision remain. After the apparent cure of the disorder, the eye sometimes remains preternaturally sensible to external influences.

"*Diagnosis.* The tubercular depositions of lymph, the reddish brown discoloration of the iris on its inner circle, the nocturnal exacerbations of pain, which is felt either in a much slighter degree or not at all during the day, the angular disfiguration of the pupil, and its displacement towards the root of the nose, together with the previous occurrence of syphilis, and, in most instances, the concomitant existence of other syphilitic symptoms, clearly designate this kind of iritis and distinguish it from other forms of the affection. The local symptoms alone are not sufficient, in all cases, to establish the distinction; for we sometimes see merely a general discoloration of the part, such as might occur in idiopathic or arthritic iritis." (P. 160.)

Both in the idiopathic and arthritic iritis, the pupil generally retains its circular figure and central position in the iris.

Causes. Syphilitic iritis must be viewed in the same light as other secondary symptoms. The only reason to be assigned for its occurrence is the previous existence of primary syphilis; or, to use the ordinary language, the contamination of the body by the venereal poison. It may happen that cold, wet, &c. will excite the complaint in those already disposed to it, by having previously contracted syphilis; but it appears, in most instances, without any assignable external cause. Syphilitic iritis may occur alone,* but it is more commonly accompanied by other secondary symptoms. It may show itself before the primary disorder is cured.† Iritis is rarely seen as a symptom of syphilis in infants.

An opinion has partially prevailed that the use of mercury is capable of producing iritis. "I have seen no instance of iritis, of whatever kind, in which there has appeared to me any reason for ascribing the occurrence of the complaint to this cause." Iritis occurred in some cases of syphilis which had been treated by Mr. ROSE‡ and Dr. J. THOMSON|| without mercury. Dr. EKSTROM, of Stockholm, informed Mr. Lawrence that he had seen many similar instances where the use of mercury in syphilis had been entirely abandoned for a long time.

The *prognosis* is favorable when the affection is recent, and confined to its original seat in the iris. We need not fear for the result, if the changes, however considerable, are confined to the iris. The mere quantity of effusion is of little moment. Before pronouncing our prognosis, we should closely examine the organ, in order to decide whether the posterior tunics are involved.

"The state of vision alone will not determine the point: the changes in the cornea and pupil may impair sight considerably, so

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* Cases 3, 6, 7, 8, 9, 10, 13, detailed by Mr. Lawrence.

† Cases 5, 20, 25, 26, 27.

‡ Med.-Chir. Trans. vol. iii. p. 361, and Cases in Mr. Lawrence's work, 17, 18, and 19.

|| Edinburgh Med. and Surg. Journal, vol. xiv. p. 91.

that the patient may be unable to distinguish objects, and may be reduced to the mere power of discriminating light and darkness in cases where the function of the organ is ultimately restored. Indeed, a considerably impaired state of vision is sometimes found where the cornea is clear, and the pupil not visibly obstructed, and yet the sense is recovered; so that even affection of the retina is not necessarily a ground of unfavorable prognosis. The case is hopeless when we find a change of colour in the whole iris, with considerable contraction of the pupil and an opaque substance in it, with intense external redness, great and deep-seated pain, and complete extinction of sight. I have not seen vision recovered when large effusion has taken place behind the iris, more particularly if it should have caused bulging of the sclerotica, or have made its way through that membrane. Great contraction and general adhesion of the pupil, a protruded and puckered state of the iris, are very unfavorable circumstances. Considerable imperfection of sight may be removed if the inflammation be recent, but not if it be of long standing." (P. 167.)

It is necessary to take a combined view of the activity and duration of the inflammation before we decide on the probable termination. Much good is often accomplished in cases that seem desperate.

Treatment. Three principal objects are to be had in view: to arrest inflammation, to prevent further effusion of lymph, and promote the absorption of that already poured out, and to prevent contraction of the pupil. Antiphlogistic measures, mercury, and the use of belladonna, are the means to be employed. In acute cases we must bleed generally and locally, repeating the evacuation until the inflammation is subdued; give active purgatives, followed by saline aperients and the tartrite of antimony; restrict the patient to low diet; guard the eye from all injurious external influences, and keep the body at rest, as well as the affected organ. When the disorder is less violent, cupping or leeches will be sufficient.

"General depletion may be had recourse to with propriety, whenever there is feverishness, particularly if the pulse be full and strong. I must observe, however, that the absence of such symptoms does not contraindicate the practice. If the local complaint be serious, and threaten mischief to the organ, the treatment may properly begin with loss of blood from the arm, unless there should be objections in the particular circumstances of the case; in the progress of the affection we should not hesitate to repeat the depletion whenever the state of the part, or of the system, or both, call for it." (P. 170.)

Local applications cannot be of much service in so serious an affection of parts comparatively internal. Poppy fomentation will, perhaps, be the most soothing, but cold applications may be employed, if more agreeable to the patient. *Blisters* are improper in the active state of the inflammation.*

Mercury. The measures just mentioned lessen the violence of the inflammation, and the pain in the eye and head; but we frequently see, after large and repeated bleedings, that the action of the capillary vessels, the essential agents of the mischief, continues. Effusion of lymph goes on, and leads to alterations of structure. Some further power is necessary to put a stop to this disorganizing and destructive process, and that power is afforded by mercury, given in such a way as to produce quickly a decided effect upon the system. Small doses of mercury are of no avail. From two to four grains of calomel, with from one fourth to half a grain of opium, may be given every four, six, or eight hours, according to the urgency of the case. Under particular circumstances, bluepill, the hydr. c. creta, or mercurial frictions, may be employed instead of calomel. Two important questions here present themselves: first, to what extent mercury should be used; and secondly, how long should it be continued. The more powerful its action on the system, the more effectually does it control the disease.

"Sometimes these ends are not accomplished by a slight action on the mouth, when a more powerful influence will quickly do the business. Full salivation, quickly produced, cuts short recent disease, as if by a charm. The remedy may then be suspended, and its effects allowed to subside slowly, which will take two or three weeks: it will not be necessary to give any more mercury. Although the disease yields more quickly and effectually to a powerful mercurial action, it will be sufficient, in general, to make the remedy sensible in the mouth. In cases of longer standing its influence is not so quickly effectual. We must persevere until the lymph is absorbed, until the natural colour of the iris returns, the red zone round the cornea is gone, and vision is restored. This will require four, six, or eight weeks in some instances. A longer time is usually necessary in relapses and second attacks, than on the first occurrence of the complaint. I attended a gentleman for an attack of syphilitic iritis, in which the disease was of chronic character; it yielded slowly, and was well in six weeks. It recurred in consequence of premature exposure to cold, and the patient was obliged to keep the house for twelve weeks in a state of salivation, recovering perfect vision, which has continued unimpaired from that time, now many years ago." (P. 173.)

Mr. Lawrence observes, that iritis, of whatever kind, is easily managed, and that it rarely fails to yield to proper treatment, even when the case has been originally neglected. The occurrence of ptyalism is, in general, attended with decided improvement in all the symptoms.

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* Case 1.

> "In comparing the progress, effects, and treatment of iritis with those of other inflammations, our attention is chiefly directed to the effusion which takes place from the inflamed texture, to its influence on the pupil, and to the paramount importance of stopping that effusion, and producing the absorption of the newly deposited substance. A very small quantity of lymph thrown out in the pupil, and then organized, may impair or destroy sight. A similar occurrence in any other part would be of no consequence. Effusions take place into the serous cavities, leading to the formation of adventitious membranes, or unnatural adhesions, without any subsequent injurious influence on the functions of the parts. Interstitial deposition occurs in other organs with similar results." (P. 178.)

Several cases are detailed, which exemplify the good effects of mercurial treatment, when active antiphlogistic means had been employed without success. Some place unlimited confidence in the power of mercury *alone,* while others discard it entirely, believing that other antiphlogistic means are capable of accomplishing all that is required. Mr. Lawrence cannot adopt either of these views.

> "The practical conclusion at which I have arrived after ample experience of the complaint, under every variety of treatment, is, that iritis generally, and the syphilitic form of the complaint particularly, will be most advantageously treated by the successive or combined employment of antiphlogistic means and mercury; that this plan will give the quickest relief, will most effectually arrest the inflammation, restoring the iris to its healthy structure and functions, and will afford the best security against the return of the disease." (P. 181.)

Even where the apparently permanent effects of inflammation had been produced, as organised adhesions, and considerable imperfection of sight, mercury has often been of service, and has essentially improved vision. Mercury is useful in the idiopathic, as well as the syphilitic form of the disease.

> "The local employment of mercury has been recommended in addition to its internal use. A weak solution of the oxymuriate has been used as a lotion; and the red precipitate ointment, also in a mild form, has been introduced between the lids. Such local stimuli are obviously inadmissible in the active stage of the inflammation; and I believe that they are of no use as mercurials, at any period. One mode of using the remedy locally is often of much service. When patients complain of severe pain over the orbit at night, the mercurial ointment combined with opium may be rubbed on the neighbouring integuments of the forehead and

temple, with great alleviation of suffering. Six grains of the ointment with two grains of finely powdered opium should be well rubbed in before the time at which the nocturnal pain is expected to recur. By this mode of proceeding, for which we are indebted to the Germans, the attack of pain will generally be prevented. The benefit, however, is confined to the relief of this particular symptom: mercurial frictions on the brow do not arrest the inflammation as the internal use of the remedy does." (P. 182.)

Artificial Dilatation of the Pupil. The state of the pupil is one of the most important points in all cases of iritis: to preserve its circular figure, its natural dimensions, and permeability to light, is our principal object in most instances. Here we derive essential assistance from that anomalous and hitherto unexplained power which certain narcotic vegetables possess of dilating the pupil, as belladonna, hyoscyamus, laurus cerasus, and datura stramonium. Mr. L. prefers the solution of belladonna. Two or three drops (one scruple to one ounce of distilled water) should be introduced between the lids. The influence upon the iris is generally produced in half an hour, or from that to an hour, and the dilatation of the pupil lasts for several hours, or even some days. Mr. L. believes that the notion of belladonna being injurious to vision, is unfounded. The kind of amaurosis which is sometimes produced by its use goes off as the action of the iris returns, producing no permanent injury. Mr. L. has known instances in which it has been employed daily for many years, but it has merely dilated the pupil, without injuring sight or doing harm in any way. We learn, too, from such cases, the important fact that its influence on the iris is not, in the slightest degree, diminished by use.

" Belladonna and the other narcotics are capable of dilating the pupil in many instances, where the iris is no longer affected by variations in the quantity of light. But the permanent condensation of this delicate texture by the effusion of lymph under violent inflammation, when allowed to proceed uncontrolled, renders it altogether incapable of motion; consequently, in such cases, the narcotics have no effect on the pupil.

" The artificial dilatation of the pupil must be combined with the use of mercury in order to prevent that contraction to which there is so strong a tendency in iritis. Belladonna and the other narcotics do not exert their power when the iris is highly inflamed, and the disease not yet checked. The application, however, although it may fail to produce the desired effect, does no harm, especially if it be confined to the surrounding skin, and not actually dropped into the eye: perhaps it may be advantageous by preventing further contraction.

"The use of belladonna is of great importance, not only in preventing further diminution of the pupil, but because the contraction of the iris, under its powerful influence, is capable, where adhesions have already taken place, if the effusion be recent, of elongating them, and sometimes of separating them entirely, so as completely to liberate the pupillary margin. But the belladonna cannot do this alone: two conditions are necessary to the accomplishment of the object: the case must be recent, and with the employment of the belladonna we must produce, as quickly as possible, a full mercurial effect on the system. Under these circumstances, I have seen the whole edge of the pupil detached from the capsule of the lens, to which it had become adherent; and, in proof that adhesions had previously existed, the capsule has exhibited a circular arrangement of black spots, marking their number and situation. These marks, of which the dark colour, like that of the adhesions, is derived from the pigment of the uvea, are permanent, so far as my observation goes." (P. 191.)

Mr. Lawrence employs mercury in inflammation of the retina, whether acute or chronic, almost as confidently as in iritis. Mr. HUGH CARMICHAEL, of Dublin, has lately recommended oil of turpentine in iritis generally, and particularly in the syphilitic form, in cases where mercury is inadmissible from its injurious influence, or from the debility produced by protracted disease: dose, a drachm three times a day, in almond emulsion. It is sometimes necessary to give the turpentine in larger quantities. Mr. Carmichael states that this remedy has seldom failed in iritis, although it has been extensively tried, and in very urgent cases. If the bowels are constipated, it appears that the beneficial effects of the turpentine are suspended. The cases related by Mr. Carmichael exhibit the powers of this remedy in a very favorable light, In several well-marked instances of syphilitic iritis, the pain, redness, and other symptoms, were quickly removed; effused lymph was soon absorbed, and vision restored under its influence. In other instances it was less successful. Mr. GUTHRIE reports that "in some cases it has succeeded admirably; in others it has been of little service, and in some unequal to the cure of the complaint." Mr. Lawrence has had no experience himself of the use of turpentine in iritis. Twenty-nine cases of syphilitic iritis are detailed.

The last chapter of the work is on *Syphilitic Ulceration of the Eyelids.*

COLLECTANEA.

Floriferis ut apes in saltibus omnia libant,
Omnia nos, itidem, depascimur aurea dicta.

PRACTICAL MEDICINE.

On the Severe and Fatal Consequences resulting from Slight Wounds in Dissection. (From the *Glasgow Med. Journal.*)

An interesting article upon this important subject is contained in the August Number of the Glasgow Journal. We give the substance of the communication in the writer's language.

"The first inquiry I shall submit to investigation may be thus stated: Is there evidence sufficient to establish and confirm the following proposition? There is a difference in the form and in the severity of the consequences resulting from dissection wounds, according to the disease which may have produced death, and to the stage of decomposition.

"I submit, as premises from which an answer to this inquiry is to be deduced,

"1st. That I have perused and kept a list of above forty published cases of dissection wounds, and I find, from that list or table, that a very large majority occurred in the dissection of recently deceased bodies before interment. Out of the whole number, only two* had their origin in the dissection of putrid bodies, and in reference to which Dr. Duncan has observed, "All the cases which I have observed, or of which I have had accurate reports, except that of Mr. Whitelaw and No. 17,† occurred after the examination of recent bodies before they were interred."‡ Both of these cases recovered; in the former the disease was severe, in the latter rather slight.

"2d. The majority, in as great a proportion of cases, not published, which have come to my knowledge, has in like manner arisen from the exposure of a raw surface in contact with the fluids of a body recently deceased."

Dr. Colles is of opinion, from observation and reflection, that "putrefaction (meaning the state of putridity) gives protection to the anatomist."§

"From these premises, the conclusion, I think, is warrantable that, from inoculation with the fluids of a body recently deceased, more danger is to be apprehended than from a similar exposure to the fluids of a body further gone in decomposition."

A majority of the cases which have been published, have been affected after the examination of the bodies of persons who had died of some affection of the serous membranes.

"A majority, in as large a proportion of cases, not published, which have come to my knowledge through other channels, has originated in similar circumstances."

Mr. Shaw states‖ that there is more danger from a wound received in examining the body of a patient who has died of peritoneal inflammation, than any other disease.

"Sir A. Cooper has narrated a case in the third volume of his Lectures, illustrative of the observation with which he prefaces it, and bearing upon the determination of the present question. His observation is thus expressed: 'It would seem that, under certain circumstances, a poison is produced, sufficiently strong to excite inflammation, even when there is no wound.'

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* Nos. 9 and 16. † No. 16 in my Table.

‡ Edin. Med. Chirurg. Transactions, vol. i.

§ Dublin Hospital Reports.

‖ Medical and Physical Journal, May 1825, p. 373.

"The case is then narrated. 'Mr. Cook, surgeon, at Marsh-gate, Westminster bridge, sent to me, whilst labouring under the highest irritative fever, in consequence of having opened the body of a person, who had died of puerperal fever. When I examined him, I found the extremities of his fingers of both hands inflamed, as if they had been dipped in scalding water, and the absorbents of his arms red, hard, and knotted, to the axilla; yet he had not any wound or abrasion of any kind upon his hands, and it would, therefore, seem that the fluid produced in the abdomen of this woman, in which his fingers had been frequently immersed, was of a highly stimulating nature.'

"M. Begin has narrated a somewhat similar case, but I have been unable to procure a detail of the particulars.

"These circumstances, especially the case of Mr. Cook, seem to me to prove, incontestably, that from some bodies more danger is to be dreaded than from others, and that those which present serous effusions are such."

Having endeavoured to determine the character of the exciting causes, the author proceeds to the investigation of those conditions of the system which may be denominated predisposing causes.

"Upon this topic, it may be inquired, Are there any such conditions, that, by rendering the body more susceptible of the impression of the excitants, or by modifying the consequences of wounds in dissection, can be justly entitled to rank under the denomination of predisposing causes? And, what are these conditions?"

On these questions different opinions have been entertained: while some attribute to a certain bad habit of body the whole *origo mali*, others affirm that the state of the constitution has no share in the production of the evil at all. Various authorities are referred to, and the inference appears to be established,

"That to certain conditions of the system may be attributed the power of rendering us more susceptible of the severe consequences from dissection wounds; and that these conditions are such as are usually expressed by the rather vague appellations of 'irritable or bad habit of body,' 'scrofulous diathesis,' 'worn out constitution,' 'general debility,' &c. names for a condition, of which, in general, no very precise ideas are formed."

The paper concludes with a few observations on the treatment of the consequences of dissection wounds.

"I may presume upon the reader's acquaintance with the most important of the practices which have been adopted. Sir A. Cooper's sentiments on the treatment may be found in Butter on Irritative Fever; Mr. Shaw's, in the London Med. and Phys. Journ. May 1825; Dr. A. T. Thomson's, in Lond. Med. Repository, April 1825; Dr. Goodman's, in Philad. Journal, No. 18; Mr. Higginbottom's, in his Treatise on Lunar Caustic; Mr. Lawrence's, in London Med. Gaz. vol. v. And I may also presume upon his acquiescence in the following judgment upon all the plans hitherto tried, pronounced by Dr. Colles. 'Whatever difference of opinion,' says he, 'may be entertained as to the nature of this affection, it will be allowed on all hands, that, although some few have escaped, yet the plans of treatment hitherto pursued have all proved quite unequal to contend with so formidable a disease."*

Dr. Colles proposes a new plan, to administer calomel with the view of speedily exciting ptyalism. He recommends three-grain doses every three or four hours, uncombined with opium or any other medicine.*

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* Dublin Hospital Reports, vol. iv.

"This was published about the middle of the year 1827, and, so far as I know, no case has been published since, either by Dr. C. or any other person in which this suggestion was put to a trial. In the month of January 1829, I suffered from the exposure of a raw surface during dissection, and having tried this mode of treatment proposed by Dr. C., I shall take this opportunity of relating the case.

"About the end of January 1829, I assisted at the inspection of the body of a female who had died of chronic pulmonary disease, with effusion betwixt the pleuræ on the left side. While handling the lung on this side, I felt a smarting pain in a scratch upon my right thumb, which I had, I thought, sufficiently cauterized with the nitrate of silver, before going to the inspection. I immediately washed and sucked the wound, and re-applied the caustic. This was about four P.M.

"2d day. About five A.M. next morning, that is, thirteen hours after the inspection, I was awakened by a severe pain above my elbow, and on the top of my arm, in the situation of the deltoid muscle. This pain increased in severity till eight A.M. when I commenced the use of a cold lotion to the arm, and calomel in three-grain doses every three hours. Had slight headach and languor. Pulse eighty-two.

"3d day. After taking five doses of the calomel it was discontinued, as by that time it had begun to act on the bowels. During the night it acted four times very freely. Sleep very disturbed. In the morning I felt very languid, but scarcely any pain in the arm. Tongue very foul. Pulse 96 to 108. Nausea prevented me from living according to Mr. Shaw's stimulating plan of regimen, which I had resolved to do. In the afternoon I began to feel my mouth a little sore, and about five P.M. on attempting to chew, felt my gums very sore, and when looked at they were found very red, with a few white spots upon them. The languor now went off. Later in the evening I felt the gluteal region of the right side very tender on pressure. The elbow and shoulder not painful except on pressure or motion.

"4th day I felt so well as to be able to resume my professional visits. After walking four miles, I felt languid and irritable, and the pain returned in lumbar and gluteal regions. After using my arm a little, it also became very painful. Re-applied cold lotion. Gums not very sore. No salivation. Pulse 92 to 100.

"5th day. During this day felt spasmodic twitching in pectoral region. The pain in lumbar and gluteal regions rather increased. Pulse ninety-two. Tongue furred and white. Tenderness of mouth and gums nearly gone. Pain in arm very little until I had used it a little.

"6th day. About midnight the pain of arm became excessive, and more nearly resembled the sensation of what is called a sleeping foot or hand, than any other I can remember, in kind, but not in degree. It continued very painful for eight hours, notwithstanding the use of the cold lotion a part of that time, and taking ℨi. of Tinct. Opii. About one A.M. recommenced the use of the calomel, of which I again took five doses. In the afternoon my mouth became sore, the calomel not having yet acted on the bowels, and in the evening I felt completely relieved from all my complaints, local and general.

"7th day. Slept well. Mouth very sore and blistered. Arm nearly free of pain even on pressure. Some red spots were observed on shoulder today. No swelling in axilla. Yesterday one of the veins of the arm, a branch of which ran over the thumb, was observed tense, hard, and painful. Today the pain and hardness are gone.

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* Dublin Hospital Reports, vol. iv. p. 249.

"8th day. General irritation less. Pulse ninety-two. Tongue white but cleaning. Arm a little painful. Mouth less sore.

"9th and 10th days. Arm a little painful. Mouth getting better.

"11th day. Yesterday evening my mouth again became painful, and the gums swollen and blistered, in consequence, I suppose, of being out part of the day, which was damp and foggy. This day felt less pain, and was less oppressed or languid than on any previous day. Commenced the use of Sulph. Quin.

"From this day I was free from complaint, save of weakness, and of the arm being very easily fatigued.

"The most remarkable circumstance in the history of this case certainly is, that the symptoms, both local and constitutional, were thrice checked in their progress at the time of the mercurial action being most sensibly felt. And if not the consequence of the mercurial action, of what was this check the consequence?

"This case, as I said before, is the only one, so far as I know, in which mercury has been used with the view of obtaining its specific effect; and among all the histories of similar cases which have been published, or privately related to me, (upwards of fifty in all,) it is not mentioned that in any, save one, was the specific effect of mercury produced by what of it had been administered for other purposes. The particulars of this case have been given to the world by Mr. Shaw.* In this case also, so soon as the mouth was affected, all the symptoms, local and constitutional, disappeared. Moreover, in other respects, it is a very interesting case.

"Though these cases cannot be considered as evidence sufficient to establish the certain efficacy of this mode of treatment, they seem to hold forth abundant inducement to make further trials, and to claim for this treatment a confidence, equal, if not superior, to that which can be reposed in any other. It is not simply and singly because the cases terminated favorably, that I would attach more confidence to this, the mercurial, than to any other mode of treatment; but it is, because the subsidence of the symptoms and the appearances of mercurial action; the annihilation, or at least the overpowering of the natural by the artificial disease, appear so intimately related by the simultaneousness of their occurrence, as to lend considerable plausibility to the hypothesis that the relation was, not merely that of casual coincidence, but that of cause and effect."

Plague cured by Turpentine and Camphor. (Dr. M'Cabe *on Fever. Midland Med. and Surg. Reporter.*)

In the treatment of fever, and, indeed, in the treatment of all diseases, our practice ought, if possible, to be guided by certain and fixed principles. The practitioner who is constantly changing his ground and changing his remedies, is not likely to be a successful one; an experimenter in medicine is a dangerous philosopher. If chance or accident, however, enables us to add to the catalogue of remedies for any disease, a new or more powerful one, or one by which general principles may be better explained or more fully elucidated, we should avail ourselves of the opportunity.

In Sir Arthur Brooke Faulkner's able work on the plague, which occurred in Malta in 1813, he has published the details of nine cases of that formidable disease, which were treated under his direction and care in the pest hospital of that island. Out of the nine published cases, I find that six proved fatal, and of the three successful ones, I find, by his notes, that a large quantity of spirits of turpentine and camphor, which was intended for an external application to carbuncles, had been given internally by mistake in two of them, and had occasioned a severe hypercatharsis. The following are the words in which Sir Arthur noticed the circumstances in his case book: "On looking accidentally into the hospital-mate's prescription book, I observed that one drachm of camphor, and four ounces of oil of turpentine, had been directed for the carbuncle, which, upon inquiry, I found the attendants had administered internally! This will fully account for the purging on the 30th and 31st." This case recovered; the other is mentioned in the following words:

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* London Med. and Phys. Journ. 57, 142.

"Die 31 (Julii 1813). Most severely purged in the night. On looking into the prescription book of the hospital-mate, I observed the same application for the carbuncle as ordered for Yaniwicz above; viz. four ounces of oil of turpentine, and one drachm of camphor. Vespere. Continues still much purged, and complains of great griping and uneasiness about the belly.

"Die Augusti 1. I found the same mistake had been committed as in the case of Yaniwicz, and the oil of turpentine and camphor had been given internally." This patient also recovered.

Sir Arthur Brooke Faulkner does not appear, in what he has published on the subject of plague, to have drawn any practical conclusions from the remarkable facts which I have here given from his book. That of the three recoveries out of nine cases, two of them should have taken such powerful purgative and stimulant medicines by mistake, appears to me too remarkable a circumstance to be considered merely a coincidence. The inference appears to be that their recovery was owing to the mistake. Although the inference may be admitted, few would choose to give four ounces of spirit of turpentine and a drachm of camphor as a stimulating purgative, although it was successful in these cases: perhaps strong drastic purgatives, such as colocynth, scammony and calomel, with diffusible stimuli, such as æther, camphor, opium and wine, would have answered the purpose, and might be considered the safer; but the great principle which I think these remarkable facts go far to establish, is, that purgation and stimulation are the appropriate remedies for the plague.

The application of these observations to fever, must be obvious. Plague is probably nothing more than a form or variety of fever; violent and destructive in proportion to the intensity of the case. The yellow fever of the West Indies, and of the shores of the Mediterranean, during the prevalence of an epidemic, is often as destructive in its ravages, and as rapid in its progress, as the plague. Of the plague, I have no knowledge from personal observation; but of the yellow fever, I have had much experience, and the practice which was found by far the most successful in the treatment of it, consisted of purgation and the antiphlogistic regimen in the early stages, taking care to prevent too much exhaustion, by the occasional exhibition of wine, camphor, and other diffusible stimuli, particularly in the latter stages of the disease; and after some experience of the typhous fever of this climate, I feel convinced that the most successful practice in it also is that which is guided by the same principles.

SURGERY.

Lithotomy. The following case, which lately occurred in my private practice, seems deserving of notice, as being very unusual in several respects. A few weeks ago, Dr. T. Thomson asked me to see a boy ten years of age, the son of an artist in town. He had been complaining for five years of the usual symptoms of stone, which latterly confined him to the house in the greatest misery. He had been passing small irregular fragments of calcareous matter.

On attempting to introduce a sound proportioned to the usual size of the urethra at his age, I met with an obstruction about three inches from the orifice, which required a good deal of pressure to admit the entrance of a small instrument. I felt a calculus lying in the neck of the bladder, or rather anterior to it; and, putting my finger into the rectum, ascertained that this was really its situation. I performed the operation next day in the ordinary way, and extracted a mass of calculous matter the size of a walnut, which seemed to have originally consisted of two nearly equal concretions: one of these was entire, and presented a smooth flattened surface to the other, the external shell of which was broken into fragments similar to those voided previously to the operation. I then examined the bladder by a sound, and ascertained that it contained no other calculus.

Every thing went on favorably until the urine ceased to flow through the wound, which happened about the end of a fortnight, when he began to complain very nearly as much as before. I concluded that the stricture must now be the cause of her sufferings, and proceeded to cure it by the ordinary process of dilatation. I am now able to pass number 4, and he is free from complaint. I never saw or heard of a stricture in the urethra in so early a period of life, and I rather suspect it was not a consequence of the irritation of the calculus, but the original disease, since his uneasy feelings were distinctly dated by his friends to an inflamatory affection of the penis, which occurred when he was five years of age.—From Mr. SYME's *Quarterly Reports, &c. Edinburgh Med. Journal.*

Surgical Recovery of an Eye. M. MAUNOIR, professor of surgery at Geneva, having performed the operation for cataract, by extraction, upon a man eighty-two years of age, weakened by an operation for hernia, which he had endured six weeks before perceived to his regret that, although the pupil remained beautifully black and perfectly intact, the anterior and posterior chambers of the eye were not replenished, the cornea became sunk and wrinkled, a few bubbles of air penetrated the anterior chamber, and the patient had no vision. Without yielding to the first melancholy impression the operator, by a happy presence of mind, conceived the hopes of filling the cavity: he sent immediately for some distilled water, warmed it, placed the patient on his back and filled the external orbit of the eye with the water, opened the eyelid, and raised the flap of the cornea. The water then penetrated into all the accessible cavities, the folds of the cornea disappeared, and its convexity was restored. Having kept the eye shut for some minutes, he then directed the patient to open it, and found it in the most satisfactory condition; the patient distinguished all the objects presented to him as well as after the most successful operation. A slight pain was felt after the introduction of the water, which went off after a short time. From that time the eye healed without difficulty, and when opened a week after the operation it was free from swelling and inflammation; the cornea was perfectly united, but the pupil was a little obscure, the sight feeble, and the patient complained that he did not see so well as immediately after the operation. But, six days after the bandage was removed, the shade of the pupil was much diminished, the sight grew stronger from day to day, and no doubt was entertained that the patient would soon be able to read common print.—*Bib. Universelle. Journal of the Royal Institution.*

CHEMISTRY.

On the Pharmaceutical Preparation of the Precipitated Carbonate of Iron. By Mr. Thomas Clark. (*Glasgow Med. Journal.*)

In order to prepare this medicine, the British Pharmacopœias direct that watery solutions of sulphate of iron, and of subcarbonate of soda, be mixed, and that the resulting precipitate should be collected by a filter and dried. The precipitate when it first appears, is white, but it soon becomes of a dark green; and when it subsides, it is found a soft pulpy mass, occupying a considerable bulk. Transferred to a filter, and there drained of its water, it is found to be little contracted in its bulk; and it still retains much water, like a sponge, in its pores. If we watch the surface which is exposed to the air, we may observe its dark green gradually change into a rust yellow. The change, it is known, is produced by the oxygen of the atmosphere. The precipitated carbonate of iron consists of carbonic acid combined with the black oxide of iron; which black oxide readily combines with more oxygen forming the red oxide; but, as the red oxide cannot, like the black oxide, retain carbonic acid in combination, this acid flies off; so that, in the yellow matter alluded to, an additional dose of oxygen has taken the place before held by carbonic acid. The yellow colour is owing to the red oxide existing in combination with water, or (to use the language of modern chemistry,) as a hydrate; and the yellow colour is changed to red whenever we apply so much heat as will drive off the combined water. Then the red oxide of iron, or colcothar of vitrol, alone remains.

This decomposition of the precipitated carbonate of iron by the action of the air might be disregarded, if it were confined to the surface; but it is far otherwise.

The bulky precipitate on the filter when it dries, whether by spontaneous evaporation, or by the aid of a gentle heat, contracts but little in its bulk, and consequently is left a light porous mass. Thus does the air obtain access to every particle of it; and thus does the decomposition, which we at first witness on the surface penetrate inward. One, indeed, is apt to think that, as little air can get into the pores, little action can be produced in the interior, compared with what we observe on the surface. Much otherwise, however, will be the opinion of the chemical experimentalist of accurate observation, who knows that every porous substance absorbs air to a wonderful extent, (charcoal, for example, thirty and even fifty times its own bulk of some gases, and consequently many more times the bulk of its pores;) and who has been taught by the action of spongy platinum on mixed gases, that in their absorbed state gases evince an active tendency to combination, which they do not manifest under other circumstances.

Besides the almost unavoidable action of the air, the action of heat is almost always employed by the ignorant pharmacian to further the decomposition of the precipitated carbonate of iron; insomuch that, by these combined actions, the substance sold under this name hardly contains more than a trace of carbonate of iron, and not unfrequently is nothing else than colcothar of vitrol. Now, colcothar of vitrol is not less different from carbonate of iron in its medicinal, than it is in its chemical properties. I have seen patients, of different ages and sexes, swallow, for a fortnight, at the rate of half an ounce a-day, of colcothar of vitrol, without producing any apparent effect, except that their stools were coloured by the powder, to a reddish hue, indicating that it had passed through the body unaltered; whereas I have seen a healthy man made sick by a dose of a quarter of a drachm of genuine carbonate of iron, and made to pass, in consequence, dark greenish black stools for two days after; and I have seen similar effects produced on patients who had been unaffected by colcothar of vitrol. The sickness, however, is not produced after the first or second day.

I call the attention of medical practitioners to these observations, and the more earnestly, that of late it has become fashionable to prescribe large doses of carbonate of iron in certain nervous diseases; and I hope that I shall perform no unacceptable service to those gentlemen, if, by concluding this paper with a simple process for obtaining carbonate of iron in a fit state for exhibition, I dissipate the uncertainty of its effects, by banishing uncertainty from its preparation, and thus enable them to repose on the evidence of their own observation; a practice which too much as yet, I fear, rests on deference to authority.

From the preceding observations, it is easy to gather, that the two defects to be avoided are exposure to air and exposure to heat. Both of these defects I propose to avoid, by forming the precipitated carbonate into an electuary: thus,

Take of sulphate of iron and subcarbonate of soda, each eight ounces. Pound each salt, and dissolve them separately in warm water. If necessary, filter. Being filtered and cool, mix the solutions in a deep vessel, capable of holding one or two gallons of water, which fill up cold. Stir, let subside, and then decant the clear liquor from the precipitate. Fill up again with water, and likewise again decant; and repeat this operation two or three times, so as to separate the soluble salts. Next put the precipitate on a filter of cotton or linen cloth, supported by a square frame. When the water has ceased to pass, gather into one hand the edges of the filter, so as to make it a sort of bag, and with the other twist it round from the holding hand downwards, so as to squeeze out the remaining water. The precipitate will now have the appearance of clay, too soft for moulding. With soft sugar and aromatic powder, in suitable proportions, make it into an electuary.

Thus we obtain a carbonate of iron, uniform in its properties, hardly deteriorated by the process it undergoes, and little liable to change by keeping.

The precipitated carbonate of iron, while yet moist, is soluble in carbonic acid. Hence a teaspoonful of the above electuary is soon dissolved in a glass of ginger beer, except the aromatic powder it contains. It may be asked, therefore, whether an eligible medicine might not be obtained as follows: Having filled a dozen of bottles with ginger beer, divide among them the precipitate from an ounce of sulphate of iron, and an ounce of subcarbonate of soda: then cork and set them aside, as usual, till they be ready. I presume that the production of carbonic acid, by the fermenting process, would go on as usual, and that when drawn in due time, we would find the carbonate of iron entirely dissolved in the ginger beer.

Production of Hydrocyanic (Prussic) Acid under uncommon Circumstances. Dr. A. HAYES.! Wishing to decompose some nitric acid containing about one third its weight of dry acid, it was subjected to distillation with one third of its weight of a raw sugar; the distillation was attended by the production of vapors of nitrous and hyponitrous acids, as is usual in the decomposition of nitric acid. The fluid in the receiver was slightly acid, it was therefore returned to the retort still containing the residue of the first operation, and gentle heat applied; the strong and peculiar odour of hydrocyanic acid was developed, in such a quantity as to render the atmosphere of a small room irrespirable. After cooling the apparatus and decanting the distilled fluid, a few drops of ammonia were added, and the alkaline fluid, mixed with a solution of proto-sulphate of iron, and a few drops of acid, deposited a bulky precipitate, which, on exposure, became of a fine blue colour.—*Rosbury Laboratory, March* 16, 1830. *Silliman's Jour.*

Salicine; its Power as a Febrifuge. A very important Memoir by M. Leroux, which was presented to the Academy of Sciences, has been most favorably reported upon by MM. Gay Lussac and Magendie. It relates to nothing less than the discovery of a principle in indigenous plants which may replace quinia and cinchonia as medical remedies. Being aware that the willow had been employed advantageously as a bitter and febrifuge, M. Leroux sought in it for some active principle, and ultimately sent two preparations to the Academy, one called salicine, the other sulphate of salicine. He at first thought the new principle was a vegeto-alkali, but when afterwards in Paris, he convinced himself that it had no power of neutralizing acids, did not combine with them, was rendered uncrystallizable by them, contained no nitrogen, and was not a vegeto-alkali. The sulphate was a mistake.

Salicine is in the form of very fine nacreous white crystals, very soluble in water and alcohol, but not in ether; it is very bitter, and partakes of the odour of willow bark. In order to obtain it, three pounds of the bark of the willow (Salix helix), dried and pulverized, is to be boiled in fifteen pounds of water, with four ounces of carbonate of potash, for an hour; it is to be filtered, and, when cold, two pounds of solution of sub-acetate of lead added; when settled, it is to be filtered, treated with sulphuric acid, the rest of the lead precipitated by sulphuretted hydrogen, the excess of acid neutralized by carbonate of lime, again filtered, the liquid concentrated and saturated by dilute sulphuric acid, then boiled with animal charcoal to remove colour, filtered hot, crystallized repeatedly, and dried without access of light. About one ounce of salicine will be obtained in the large way; probably twice the quantity would result, for great loss is occasioned by the above numerous operations. It may be preserved in well-closed bottles, and does not attract moisture.

As to the medicinal powers of this substance, M. Magendie states, that his own experience of its effects in intermitting fevers is favorable, and that he has seen three doses, of six grains each, stop a fever. He quotes the experiments of MM. Miquel, Husson, Bally, Girardin, Cognon, &c., at the hospitals and elsewhere, in its favor: they all agree in its anti-febrile power, and in stating that from twenty-four to thirty grains of salicine will arrest the return of the fever, whatever may be its kind. This is nearly the same as the dose of the sulphate of quinia.

In concluding, the commissioners state that M. Leroux has discovered in the willow (Salix helix), a crystallizable principle which approaches sulphate of quinia in its anti-febrile power, and that this discovery is, without contradiction, one of the most important that has been made for many years in pharmaceutical chemistry.—*Journal of the Royal Institution*, from the *Ann. de Chimie.*

INTELLIGENCE.

Prize of 1,100l. offered by the Russian Government for the best Essay on Cholera Morbus.

To the Medical Faculty in England.

Cholera Morbus. The epidemic disorder known under this name has of late years committed the most frightful havoc among various nations in Asia. Within the last fifteen months this awful scourge of human life has made its appearance in several provinces of the Russian empire with undiminished severity. No medical work hitherto published on this fatal malady has been found satisfactory, nor have the suggestions contained in such works succeeded in arresting its devastating course, which, on the contrary, becomes every day more extensive, and seems to threaten the whole of Europe.

Moved by a deep feeling of humanity, the imperial government of Russia deem it right to call the attention of the medical profession in Russia, Germany, Hungary, Italy, England, Sweden, and Denmark to this vitally important subject, and to propose to them to forward to the said government treatises on the cholera morbus, which shall embrace the following points:

1st. A clear and detailed account of the nature of the disease.

2d. A statement of the causes which give rise to it.

3d. A description of its mode of propagation.

4th. A demonstration, by the means of exact and faithful experiments, of its being communicable from one individual to another, if such be the fact.

5th. An indication of the measures to be adopted for self-preservation against its contagion, should the disease prove contagious; and

6th. Of the means best calculated to ensure a recovery.

Such treatises, or essays, may be written in the Russian, Latin, German, English, or Italian languages, and directed to the " Conseil de Médecine" (Medical Board) at St. Petersburg, until the 1st (13) September, 1831. The name of the author is to be forwarded in a separate envelope.

The author of the best treatise, who shall have fully complied with all the above conditions, will be rewarded, by the imperial government of Russia, with a sum of 25,000 roubles in bank paper, amounting to about 1,100 pounds sterling.

This is distributed to the members of the Faculty, with the outside signature of Chevalier Benkbousen, the consul general, who, of course, stamps with authority the document, and becomes necessarily a guarantee for the execution of the promise.

The Westminster Medical Society has commenced its meetings for the session, and Dr. ALEXANDER THOMSON has, alas! commenced his speeches.

BIBLIOGRAPHICAL NOTICES.

A few Words on Quackery. By DEMOCRITUS JUNIOR. Burgess and Hill, 1830.

WE lament that the author of these " few words" has not entered more at length into the subject of quackery, although he has done enough to show that he has the rare talent of being severely sarcastic, without incurring the censure of vulgar personalities. We trust we shall hear more from Democritus Junior; he wields his pen with too much dexterity to allow it to remain idle. The motto he has selected from Pope is happy:

> " Plain truth, dear St. John, asks no flowers of speech."

His principal object is to show the why and the wherefore of the success with which Messrs. Goss and Co., Mr. St. John Long, and other "gapers after fame and money," have been so fortunate as to meet.

A fidgetty, fretful girl, whose parents lack wit, but not money, thinks it well to be genteelly consumptive: she *must* go to Mr. Long. " Now the truth is, that Miss Louisa's complaints are simply nervous or hysterical; and any thing capable of changing the hypochondriac current of her ideas, or relieving the dull monotony of her existence, will effect a temporary cure, be the remedy agreeable or disagreeable, be it prescribed by Maton, or inflicted by Long: thus marriage, a trip to Brighton, or a legacy of 10,000*l.* will prove as effective as assafœtida, a residence in a disturbed Irish district, reading Mr. Long's book, or being flayed by his liniment."

"You see, my dear public, I have no spite against the famous liniment; quite the reverse: I believe it to be a good, scorching, burning, skin-destroying, slough-creating liniment, as one might wish to see on a summer's day, as good a liniment as the healing god might have used, when whilome in Harley street, (I beg pardon, in Phrygia,) he cured Marsyas of all his ailments in one single visit. Nay, more, I must freely confess that there is one quality in which this vigorous liniment

——'stands alone,
Like Adam's recollection of his fall;'

a quality to which a red-hot poker, and sulphuric acid, and the cat-o'-nine-tails, and caustic potash, and other of its elder-born brothers, make no pretension; I mean its acute discriminating power. This is not one of those vulgar embrocations that fasten on friend and foe alike; one of those hot-headed inconsiderate lotions that would treat the skin behind which the lungs of Stentor were entrenched, like the skin of a Hawkes or a Fennel. No, no; a liniment educated in the polite air of Harley street would scorn the sordid manners of its relations brought up in hospitals, whose unfashionable site I am almost ashamed to mention. This sharp and superhuman discernment will, certainly, place the liniment far above the stethoscope; no man will content himself with looking, or rather hearing, when he can look and cure at the same time."

"How curious it must be to observe a broad excoriation, the telegraphic signal of some vast abscess within, and to contrast it with the minor and interrupted flayings that indicate the presence of tubercles!" The young lady, who fills up her leisure by fancying herself consumptive, and thus occupies her vacant mind, "after paying twenty or thirty visits (and twenty or thirty guineas), is compassionately dismissed cured, or greatly relieved, with some skin, a little money, and the most perfect faith in the wonder-working embrocation. So astonishing a recovery as this spreads along the Surrey road: Clapham is amazed, Balham Hill pricks up its ears, and Tooting thinks that the good St. John deals with something that is not right. However, it all brings grist to the mill. Surrey carriages are seen clustering at the door of the arch-skinner: Surrey sovereigns jingle in his pocket. Miss Epsom has sprained her foot at the races; it is rubbed, and is well. The right honourable Lord Leatherhead feels dull and stupid; he is for a time tortured into liveliness."

We verily believe that such are the kind of cases upon which the reputation of Mr. Long is founded. Other medicasters have been equally successful, and have also been "warmed in the sun of aristocratic praise." Thus says Democritus: "Mrs. Stephens was the St. John Long of 1738-42; perhaps even longer. I confess it is an injustice to her memory to mention them together. She enjoyed the praises of Hales and Hartley: Mr. Long is too happy to be mentioned by the Literary Gazette."

Democritus Junior is evidently a man of liberal education: his wit is classical, and the style of the little *jeu d'esprit* with which he has favored us very well adapted to the object in view, of exposing ignorance and imposition, and of ridiculing the little follies of the great.

An Outline of the Sciences of Heat and Electricity. By THOS. THOMSON, M.D. Regius Professor of Chemistry in the University of Glasgow, F.R.S. &c. 8vo. pp. 583. Baldwin and Cradock, 1830.

ALTHOUGH we cannot enter into a copious analysis of this work, it must not be inferred that we are insensible of the philosophical importance of the subjects it discusses, or of the ability with which the learned author has treated them. Students, who are desirous of obtaining information upon the subjects of heat and electricity, will need no other assistance than the present volume, which contains an abridgement of the lectures on those subjects which are annually delivered by the author in the College of Glasgow, as a necessary introduction to the elements of chemistry. As a text-book for Dr. Thomsou's pupils, this work must be particularly valuable.

MONTHLY LIST OF MEDICAL BOOKS.

An Introduction to the Natural System of Botany: or, a Systematic View of the Organization, Natural Affinities, and Geographical Distribution of the whole Vegetable Kingdom; together with the uses of the most important Species in Medicine, the Arts, and Rural or Domestic Economy. By JOHN LINDLEY, F.R.S. L.S. G.S. &c. and Professor of Botany in the University of London. 8vo. pp. 374. London: Longman, 1830.

LOUDON'S HORTUS BRITANNICUS. A Catalogue of all the Plants indigenous, cultivated in, or introduced to Britain. Part I. The Linnean Arrangement, in which nearly 30,000 Species are enumerated; with the Systematic Name and Authority, Accentuation, Derivation of Generic Names, literal English and Specific Names, Synonymes, systematic and English, of both Genera and Species; Habit, Habitation in the Garden, indigenous Habitation, popular Character, Height, Time of Flowering, Colour of the Flower, Mode of Propagation, Soil, Native Country, Year of Introduction, and Reference to Figures: preceded by an Introduction to the Linnean System. Part II. The Jussieuean Arrangement, or nearly 40,000 Genera, with an Introduction to the Natural System, and a General Description and History of each Order. Edited by J. C. LOUDON, F. L., H., G., and Z. S. 8vo. pp. 576. London: Longman, 1830.

A Practical Treatise on Diseases of the Eye. By WILLIAM MACKENZIE, Lecturer on the Eye in the University of Glasgow, and one of the Surgeons to the Glasgow Eye Infirmary. 8vo. pp. 861. Longman, 1830.

A Demonstration of the Nerves of the Human Body; consisting of four Parts. Part I. the Cervical and Thoracic Portions of the Sympathetic, and the Nerves of the Thoracic Viscera. Part II. the Lumbar and Sacral Portions of the Sympathetic, and the Nerves of the Abdominal Viscera. Part III. the Cerebral Nerves. Part IV. the Spinal Nerves. By JOSEPH SWAN. Large folio. Longman, 1830.

> Mr. Swan's name is a passport to the attention of the profession upon any subject connected with the anatomy or physiology of the nerves. These plates are executed in the very first style; the descriptive text is concise, yet perspicuous; the references are clear and distinct. The work will be confined to the illustration of the subjects of the two Collegial Anatomical Prizes adjudged to Mr. Swan in 1825 and 1828, by the Royal College of Surgeons. To anatomical students, and practitioners in surgery and medicine, this work will be found of great service: by its help, the former will be enabled to understand, and to store up in his memory, the lectures of his teacher upon the nervous system, and the latter, who can no longer attend the dissecting room, will very often find, by referring to it, a clue to many pathological phenomena which would be unintelligible without that kind of assistance which the ability and zeal of Mr. Swan here offers. The first part only of this very splendid and useful work is yet published.

Medico-Chirurgical Transactions, Vol. XVI. Part I. 8vo. pp. 235; two Plates. Longman, 1830.

Tronsactions the Medical and Physical Society of Calcutta. Vol. IV. 8vo. pp 449. Parberry and Allen, 1829.

Observations on Asthma, Consumption, and other Disorders of the Lungs; with Cases showing the Benefit to be derived from a Nutrient and Invigorating System of Diet and Regimen, in Pulmonary Diseases and disordered Breathing. By A. Rennie, Surgeon, &c. Second Edition. 8vo. pp. 95. Burgess and Hill, 1830.

A Practical Treatise on General or Partial Debility, either Original or Hereditary, or from Age, Dissipation, Residence in a Tropical Climate, &c.: and on the most effectual Means of Preventing and Curing Organic Diseases, &c. which undermine the Constitution, and lay the Foundation of the Climacteric Malady, or Breaking-up of the Constitution, in both Sexes, by Diet, Exercise, and the Round-leaf Cornel, where a tonic Remedy is necessary. To which is added, an Account of the Lobelia Inflata, the celebrated American Specific for Asthma; with Remarks on the Seat, Causes, Dietetic and Medical Treatment of the different Varieties of Asthma. By S. H. Robinson, m.d. and others. 8vo. pp. 86. Highley, London, 1829.

Elements of Surgery. By Robert Liston, Fellow of the Royal Colleges of Surgeons in London and Edinburgh; Surgeon to the Royal Infirmary, &c. Part I. 8vo. pp. 318. London: Longman and Co. 1831.

METEOROLOGICAL JOURNAL,

By Messrs. Harris and Co. Mathematical Instrument Makers, 50, High Holborn.

	Moon.	Rain gauge.	Thermom.			Barometer.		DeLuc's Hygrom.		Winds.		Atmospheric Variations.		
			9 a.m.	*max.*	*min.*	*9 a.m.*	*10p.m.*	*9 a.m.*	*10p.m.*	*9 a.m.*	*10p.m.*	*9 a.m.*	*2 p.m.*	*10p.m.*
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24		.17	54	59	48	.53	.43	56	55	WSW	WSW	Fine	——	——
25	☽		55	58	45	.60	.76	55	54	WSW	W	——	Sho'ry	——
26			52	59	49	.98	30.20	54	55	NW	WNW	——	Fine	——
27			54	62	55	30.23	.21	57	58	W	SW	Cloudy	——	Cloudy
28			58	61	50	.11	29.98	58	57	SW	SW	Cloudy	——	Fine
29			53	58	46	29.88	.88	57	57	WNW	NW	Cloudy	——	——
30			51	56	46	.94	.91	56	56	NW	SSW	Cloudy	——	——
Oct. 1			53	57	55	.95	.95	55	57	SW	NE	Fine	——	——
2	☉		61	64	57	.96	.90	58	58	SW	SW	——	——	Rain
3		.43	60	62	54	.94	30.00	60	60	SW	WSW	——	Cloudy	Fine
4			59	62	45	30.02	.16	61	58	WSW	N	Cloudy	Fine	——
5			56	60	47	.24	.25	56	56	NNW	NNW	Fine	——	——
6			52	59	48	.23	.21	57	58	NW	NW	——	Cloudy	——
7			54	57	51	.22	.25	58	59	NW	NW	Cloudy	Sleet	Cloudy
8	☾		56	61	55	.30	.31	59	58	NW	NW	Fine	Fine	——
9			57	59	52	.35	.35	57	56	NNW	NNE	Cloudy	Fine	Cloudy
10			56	58	47	.35	.31	56	56	NNE	NE	Fine	——	Fine
11			51	55	48	.29	.19	57	57	ESE	ENE	——	——	——
12			54	58	45	.19	.19	57	59	NE	ENE	Cloudy	——	Sleet
13			52	55	47	.21	.21	59	57	ENE	ESE	Fine	Fine	Fine
14			52	54	42	.14	.11	58	56	ESE	ESE	——	——	——
15			48	51	42	.07	.07	55	57	SE	ESE	——	——	——
16	●		50	54	45	.12	.16	57	57	SE	ESE	——	——	——
17			49	53	44	.19	.21	57	57	SE	SE	Foggy	——	——
18			50	56	49	.13	.01	59	60	SE	SE	Fine	——	Cloudy
19		.38	55	61	55	29.89	29.83	60	62	SE	S	Sho'ry	——	Sho'ry

The quantity of Rain fallen in September was 2 inches and 92-100ths.

Communications received from Dr. and Mr. D. Griffin, Dr. Barry, *&c.*

ERRATUM in our last Number, p. 342, two lines from top, for "have" read "has."

THE LONDON
Medical and Physical Journal.

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For many fortunate discoveries in medicine, and for the detection of numerous errors, the world is indebted to the rapid circulation of Monthly Journals; and there never existed any work to which the Faculty, in Europe and America, were under deeper obligations than to the *Medical and Physical Journal of London*, now forming a long but invaluable series.—RUSH.

ORIGINAL PAPERS, AND CASES,
OBTAINED FROM PUBLIC INSTITUTIONS AND OTHER AUTHENTIC SOURCES.

GIBRALTAR FEVER.

A Letter to Sir JAMES M'GRIGOR, M.D. F.R.S. C.T.S. Director General of Military Hospitals, &c., *on the Sanatory Management of the Gibraltar Fever.* By DAVID BARRY, M.D. K.T.S., Physician to the Forces, Doctor of the Faculty of Medicine of Paris, Licentiate of the Royal College of Physicians of London, Member of the Philomatic Society, and of the Society of Natural History of Paris; Physician to the Middlesex Infirmary and Dispensary, &c.

"Salus populi. Suprema lex."

SIR: Since my return from the mission on which I had the honour of being sent by you, to Gibraltar, in 1828, when the black-vomit yellow fever raged there with such frightful mortality, it has often occurred to me that a great saving of human life might be effected, on any future similar occasion, by the timely issue, as a standing order, of a well-digested code of sanatory instructions, based on the general, and local history, of the disease, commensurate with the actual state of science, and sanctioned by the constituted medical authorities of this country. Why the government has not already called on some of these learned bodies to legislate, publicly, on this important subject, I know not. The diversity of professional opinion, the discrepancy of alleged facts, and perhaps a disinclination to brave, gratuitously, the rancour of party criticism, may have contributed to deter them from a spontaneous effort to form a Code Sanitaire. Be this, however, as it may, the medical officer, whenever he has had to contend with this dreadful scourge, has generally found himself taken unprepared, and always unprovided with any authorised system of medical police to guide him in his difficulties, to save him from indecision and error, from useless, and perhaps pernicious, experiment.

It was with a view to lead towards a remedy for this evil, that I have ventured to draw up the few sanatory suggestions which I now take the liberty of submitting to you and Sir W. Franklin, for your approval. They aim at but one object—to save the susceptible from being attacked by the disease; and in the present state of our knowledge of it, none will deny, that prevention is better than an attempt to cure. They were forced upon my attention chiefly during my late residence in Gibraltar. What I then observed at the bedside of the sick, and in the dead house: the facts which came to my knowledge, during an active participation of five months, in 1829, in the labours of the three commissions appointed to investigate the history of the disease on the spot: the results, in short, of the most laborious and minute inquiries ever accomplished on any similar occasion, have impressed the fullest conviction on my mind, that the means by which the march of this epidemic may be effectually arrested, and the people saved from its ravages, should it again break out in that fortress, need be no longer doubtful.

From the measures which you have long since adopted, to favor the advancement of science amongst the medical officers of the army, and from the satisfaction with which you have always viewed their efforts to promote that advancement, and to contribute to the good of humanity, I feel confident that my little outline of a Code Sanitaire for Gibraltar, will be indulgently received, and that my motives for attempting a task, which might have been so much more ably executed by many others, will be favorably appreciated.

I have the honour to be, Sir, your most obedient and most humble servant,

DAVID BARRY, M.D.
Physician to the Forces.

Welbeck street; 14 July, 1830.

To Sir James M'Grigor, Director General, &c.

On the Sanatory Management of the Gibraltar Epidemic Fever. By David Barry, M.D. &c.

There are two important benefits, which society seems to have a right to expect from the judicious application of medical science to municipal and military police, viz.

1st. The prevention, or warding off, of epidemic disease.

2d. The arrest of its spread, should it unfortunately occur, either from the inefficiency, or neglect of preventive measures.

The smaller and the more circumscribed the community, the more easily accomplished these objects appear to be, and the greater the confidence with which their attainment is looked for. All the arrangements hitherto adopted in Gibraltar, with a view to the accomplishment of either of these objects, have been based on one, or other, of the following sets of opinions as to the nature of the disease with which that territory has been so often afflicted, within the last twenty-five years.

1. That it is only a grade of the ordinary remittent fever, subject to all its laws, never contagious, nor imported; that whenever it has hitherto appeared there, it has been invariably generated within the territory, by a particular combination of local circumstances, independently of introduction from without; that it occurs there sporadically every year; that it is propagated by the influence of causes, to which all are alike exposed, independently of contagion, direct or indirect.

2. That it does not belong to the class of remittent fevers, but is a disease of a peculiar nature; that it never attacks the same individual more than once, during life; that it is contagious, and therefore capable of being imported and propagated, at certain seasons of the year, amongst a population previously healthy, by the introduction of one, or more, infected persons, or things; that it is not found sporadically in the territory, and that it never originates there.

3. That whether the disease be only a grade of the ordinary remittent fever, or one of a peculiar nature, yet that it may originate in causes purely local, either in reference to particular spots of the territory, or to some ship in a foul state.* But that it may become contagious, that is, be propagated directly by emanations from persons sick of the disease, or indirectly by means of their clothes, or other effects, under circumstances favorable to such propagation.

These propositions embrace, I believe, the tenets of all the parties hitherto formed on the subject of the Gibraltar fever. Each set of opinions has its respective medical and lay abettors. Each has been, and may again be, exclusively acted on, in the season of calamity, as the views of the principal medical officer, for the time being, may incline. Certain it is, however, that they cannot all be correct, nor equally conducive to public safety.

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* Audouard, Recueil des Memoires, &c.

Whoever directs preventive measures, under the conviction that the first set of opinions is alone well founded, will, of course, place at nought all consideration of danger from abroad, and direct his attention solely to internal arrangements. These come under the heads of municipal improvement, cleanliness and ventilation, removing all sources of unwholesome effluvia, distribution and lodging of the population, limitation of its numbers, wholesomeness and abundance of food and water, proper clothing and occupation, &c. Under the conviction of this doctrine, all vigilance, observation, and purifying, of persons and things arriving from the outside, are perfectly useless, in a sanatory point of view, and being injurious to commerce, ought, on the same principle, to be discontinued.

The abettors of the second set of propositions would naturally recommend active, and well-regulated, quarantine establishments, and would consider them of primary importance towards preventing the first appearance of the disease. They would look to internal sanatory police, as calculated to promote general health and comfort, and to check contagion, rather than to prevent the local generation of this peculiar malady.

In Gibraltar, where there are no purifying lazarettos, and where the limited extent of territory, and other peculiarities, preclude the possibility of such establishments, precautionary measures, until very lately, have chiefly consisted in protracted quarantine, immersion in water, and careful ablution of every thing belonging to the crew and passengers of ships arriving from suspected places, before they were admitted to what is termed *pratique*, or free intercourse with the community.

Ships from yellow-fever countries, whatever might have been the state of health of their crews, during the passage, were seldom refused admittance into Gibraltar, up to last summer, or into Cadiz, up to the last occupation of that city by the French. Free intercourse, however, with the shore was interdicted for a greater or less number of days, until the quarantine department had reported that their admission to pratique would not be likely to endanger the public health. By a late regulation in Gibraltar, it was ordered that, in the cases of ships, in which one or more persons had died on the passage, as these deaths are always presumed to have occurred from yellow fever, health guards should be placed on board, on their arrival, for the alleged purposes of more effectually preventing intercourse with the shore, and of enforcing the observance of certain orders as to the manner of landing the cargo. This last operation was conducted upon the following plan: The articles considered incapable of conveying the seminium of the disease from the ship to the shore, were allowed to be landed after ten, fifteen, or twenty days' observation, whilst the crew, passengers, and their effects, were retained on board some days longer.

Although deaths had frequently occurred on board ships, on their passage to Gibraltar, from South America, and the West Indies, but particularly in 1828, when as many as ten died in different ships, on their passage from these countries during the summer; yet, I believe, the only instance in which health guards were stationed on board any of them, was in the case of the Dygden, a Swedish ship. She arrived on the 27th June of that year, having had nine persons sick of fever on her passage, of which two died; commenced landing her cargo on the 17th July; had a man reported sick on the 24th; took health guards on board on the 27th, and was admitted to pratique on the 6th August, when two more sick men were landed from her, and sent to the civil hospital, one as a broken arm, the other as intermittent fever.

In a free port, such as Gibraltar, where every thing is admitted indiscriminately, where smuggling outwards is encouraged, and is indeed the very soul of its trade; where even the obvious and elementary purification of the suspected, and their goods, by water and air, appears to have been sometimes omitted, it need not be wondered at, that the very lax measures, just detailed, should prove ineffectual against the introduction of a disease capable of being caught by personal intercourse, or conveyed in foul clothes or bedding. Indeed, if we admit this mode of infecting a healthy community to be possible, we must be surprised, not that the disease has appeared so often within a few years in Gibraltar, but that it should not have shown itself whenever local circumstances happened to have been favorable to its propagation.

The French, during their late occupation of Cadiz, aware of the laxity with which sanatory, and custom-house guards generally perform their duties, and of the temptations to which inadequate pay, on one side, and commercial avidity, on the other, must expose them, determined not to intrust the health of their garrison to such hands. They, therefore, absolutely refused to permit vessels from the Havannah, or other yellow fever countries, to enter the harbour, under any pretext whatever, from June to the middle of October, and obliged them to proceed to Mahon, there to undergo a complete purifying quarantine. If the disease, as suspected, had hitherto been introduced into Europe, by South American and West Indian ships, it is evident, that this measure, of all others, is the best calculated to prevent its importation in future. A similar measure was adopted in Gibraltar in 1829, and, if fairly persisted in, will go far towards deciding the long-agitated questions of importation and local origin. It is to be feared, however, that the insatiable cupidity of commerce, ever ready to stake human life against the prospect of gain, will find means to set aside this salutary regulation, long before its preventive influence would be much more necessary, than at the close of a destructive epidemic.

Whatever truth there may be in the third set of propositions, they are not likely to lead to any thing very efficient in the way of preventive measures, because, as ordinary fevers will occur in spite of the strictest quarantine and best-regulated internal arrangements, and may become contagious, the conviction must result, according to this view of the disease, that the breaking-out of an epidemic is nearly, if not entirely, beyond human control. Little or nothing, therefore, will be done under this belief, except to save appearances with the authorities and the public, until the disease has spread its roots amongst the population, and, even then, there will be a weakness and unsteadiness of purpose, corresponding to the vagueness of the opinions.

The very success of measures, of a purely preventive nature, in warding off the approach of distant danger, seems to have a tendency to excite doubts as to their real utility, by lulling the public mind into a persuasion, that there had been no danger to be apprehended. Whenever this false security produces a relaxation of vigilance, and the disease happens to reappear during this abandonment of jealous precaution, sophistry suggests that it is a mere coincidence, and boldly recommends yet another trial of the dreadful experiment.*

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* Now that commercial intercourse between the British West Indies and the continent of America has been thrown open by both governments, it is highly probable, that we shall soon hear of the arrival of an infected ship at one or more of the islands, and of the breaking out of the yellow fever, "by the merest accident in the world," about the same time. The long exemption from this dreadful scourge enjoyed by the windward portion of these colonies, since the year 1821, renders this deplorable event doubly probable.

We shall now leave this branch of the subject, and proceed to the consideration of those measures of sanatory police, which have for their object, *the arrest of the disease, at any period of its progress,* but more particularly at its commencement.

What has experience taught us with regard to this disease, upon which efficient sanatory proceedings may be established?

1. We know that, up to the year 1730, the disease was unknown in Europe, and that, since that period, it has appeared in Cadiz and other parts of the south of Spain many times, in an epidemic form, at intervals of various length; that it has visited Gibraltar five times, including its first appearance there in 1804, at intervals of five and a half, two and a half, half a year, and thirteen and a half years.

2. That it never begins to show itself, at least in an epidemic form, in Europe, before the middle of summer, nor after the end of autumn, and that it does not continue its ravages after the cold of winter has fairly set in.*

3. That it never attacks the same individual a second time, however exposed that individual may be to its influence.

4. That, when once it has taken root, it spreads most fatally and rapidly in a close, unagitated atmosphere, under certain circumstances of heat, season, and susceptibility of persons.

5. That, in the immediate vicinity of the first sick of the disease, persons are much more apt to be attacked, than at distant points.

6. That those engaged in the attendance of the sick, and those who are most in the same rooms, or buildings, with them, are more liable to be attacked, than those totally unconnected with them.

7. That centers, or foci, of peculiarly active infection, or contagion, may be formed by the accumulation of persons labouring under the disease, in sheltered, ill-ventilated places; as, for example, in the naval hospital in Gibraltar.

8. That the disease is generally, if not always, confined to a known and limited spot, or district, for days, nay even weeks, after its first breaking out; and that it spreads gradually, often appearing to follow personal removal from one place to another, leaving intervening places free.

9. That it spreads but very rarely, if at all, in an open,

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* From the summer to the winter solstice, that is, as long as the days continue to become shorter, is the season during which alone, yellow fever has ever been known in an epidemic form, in Europe.

fresh, well-ventilated country, where the air is constantly agitated and renewed, and where the sick can be widely separated from the healthy.

The sanatory history of the five Gibraltar epidemics affords a most instructive, practical lesson, as to the comparative value of the measures adopted to check their respective progress, and also as to the apparently comparative correctness of the medical opinions, on which these measures were based.

At the breaking out of the first, the terrible epidemic of 1804, the chief medical officer was exclusively guided, in his arrangements, by the set of opinions marked No. 1. The rifeness of the prevailing fever was, at first, attributed to eating melons and drinking water. At a later period, the fumes of a lime kiln, then, and still, burning in the town, were accused of promoting the excessive mortality. The destroying march of the disease, however, did not experience the slightest sanatory check, until it had carried off some thousands of the population, and attacked the doctor himself, the conscientious supporter of non-contagion and local origin. In the month of October, at the very acmé of this dreadful epidemic, Dr. Pym became the chief medical officer. Even at that very early period of our acquaintance with the disease in Europe, he held the opinions marked No. 2, of which he may be styled the founder. The sanatory measures which he recommended were based upon these opinions, and the result, even of their late and partial application, was, that 1,200 of the military, (which at the beginning of the epidemic amounted to 4,200,) were saved from being attacked: whilst of the civil population, amounting to 14,000, only twenty-eight individuals escaped infection.*

In 1810, the disease was publicly known to have arrived in the bay from Carthagena, on the 19th September, on board certain transports; and, though closely watched by Dr. Pym, then also at the head of the medical department of the garrison, it found its way on shore on the 20th of October, thus affording him a fair opportunity of trying the efficiency of measures founded on his peculiar doctrines. He acted, on this occasion, on the same principles as he had done in 1804, and, by his admirable promptitude and decision, confined the ravages of the pestilence on shore to about a dozen victims.

In the year 1813, the first case of the third epidemic of Gibraltar occurred on the 12th of August, in the person of a man who had arrived the day before from Cadiz, where the disease then prevailed. He died on the 19th.[*] From the 3d to the 10th September, nine deaths had taken place: on that day, my esteemed friend, John Cortez, a Spanish surgeon, long resident in the garrison, than whom there are but few more observant, and none more honourable, recognised, in two patients, the disease which he had already witnessed in both the former epidemics. He immediately gave the necessary information to the chief medical officers, but the Board of Health, which had been established since May, distracted, as it would appear, by the discrepancy of medical opinion, delayed the adoption of vigorous measures. In the mean time, the disease took root, and carried off, before the end of November, one thousand victims. The sanatary arrangements adopted, though too late, were not quite ineffectual: they were based upon the second set of propositions, and succeeded, by insulating the dockyard, in saving nearly the whole of its inmates from being infected. A foul lazaretto was established on the 19th September, on one of the north glacis, in which Mr. Cortez remained shut up, in charge of the sick, to the 23d December following, and thus acquired a practical experience of the disease, of which few can boast.[†]

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* Observations on the Bulam Fever, by Dr. Pym, p. 27.

In 1814 the disease again broke out, was again first recognised by my vigilant friend Cortez, so early as July, and after a long and deadly struggle, was fairly beaten out of the field before the end of October, by the prudent and energetic dispositions of Mr. Inspector of hospitals Frazer, then chief medical officer. It is needless to say, that his arrangements were based on the second set of propositions. They would most probably have been completely successful, and have stifled the disease at its very commencement, had not the owner of the house first infected concealed some of its inmates from the medical, and police inspectors, to prevent their being sent to the neutral ground. The persons thus concealed were Barbary Jews, and furnished the next cases that occurred in the town, after the sick and the suspected had been sent into the lazaretto camp.[‡]

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[*] Vide the obituary register of the Roman Catholic church of Gibraltar, and the books at the Quarantine Office.

[‡] Vide Letter on the Gibraltar Fever, by W. W. Fraser, p. 8.

[‡] These particulars I have from Mr. Cortez, who considers the breaking of the disease, in 1814, due to *reproduction*. Domingos Moreno, a Portuguese, was attacked, on the 27th July, and became his patient. He died on the 4th August, and was opened by Mr. C. Two days previously to his death, he confessed that, at the burning of infected articles, the year before, he had purloined some clothes, which he still preserved in his chest.

In the year 1828, after an interval of nearly fourteen years of uninterrupted public health, the disease again broke out in Gibraltar. It was viewed by the then chief medical officer, at its commencement in August, and during the early period of its progress, in the same light that it had been viewed in 1804, that is, exclusively upon the principles of the first set of opinions. In the measures recommended towards the middle of its destructive career, there seems to have been a strong belief of contagion; but not the slightest check was put to its ravages, except that produced by the diminution of its proper food, until, as in 1804, Dr. Pym was once more placed at the head of the medical administration of the garrison. At this time, the official reports of the progress of the disease exhibited the most alarming numbers in their columns: although the daily deaths, and fresh attacks, had diminished. This was owing to the convalescents having been, for some weeks, allowed to accumulate. These, as they quitted the hospital, were at first sent on board a transport, and when this would hold no more, into sail lofts, and tents in the dockyard. In fact, no man, after having once entered the sick ward, whether he lived or died, was permitted to return to his corps, nor to duty of any kind, notwithstanding the strong remonstrances of regimental commanding officers on the subject. This injudicious measure, the result of a vague, undefined dread of contagion, was said to be based on something which was termed "*plague precaution.*" Dr. Pym, immediately on taking charge, reduced the convalescents to the very minimum, by discharging a great number of them, to be employed in the town, on the duties most likely to endanger the health of the, as yet, unattacked soldier.

I need not inform you, sir, of the rapid reduction of the sick list which followed this arrangement. The records of your office will furnish the proof, and, if these were wanting, the whole surviving population, civil and military, would testify, with one voice, as to the striking amelioration of public feeling, the restoration of confidence, and immediate quieting of the public mind, which Dr. Pym's measures produced, at that period of deep and dreadful agitation.

The melancholy experience of these five epidemics, by which nearly ten thousand persons were swept off, has fully proved that the disease, whatever may have been its origin, if left to itself, under certain circumstances, *will spread and kill,* yet that much may be done, even in the limited territory of Gibraltar, towards diminishing the number of its victims, by proper sanatary arrangements. But as these arrangements necessarily entail great inconvenience upon individuals, and often on the whole community, it becomes highly desirable that they should not be resorted to, except on a full conviction of their necessity. On the other hand, as their efficiency must, in great measure, depend on the promptitude with which they are applied, no means should be omitted which can contribute towards the determination of the moment, when further delay in their adoption would become dangerous and culpable. That moment will have arrived, when one, or more, cases of the disease have been proved to exist within the territory. It therefore becomes a matter of the very highest importance, *not only to be able to distinguish this disease from every other*, but also that such measures should be taken as will ensure to those whose experience enables them to make this distinction, an early view of all suspicious cases. Here, then, another set of precautionary measures come into action, such as the division of the town and territory into small districts; the appointment of medical, and lay-inspectors to each;* enjoining the heads of families, under certain penalties, to report to the inspectors of their district any febrile attack occurring in their families, during the suspicious season, within twenty-four hours after its commencement; enforcing similar reports to the chief medical officer, from all civil practitioners, as to their patients; strictly preventing the burial of the dead, under any pretence whatever, before they shall have been examined, at least externally, by an appointed medical officer.†

But it may so happen, that the chief medical officer has never seen the disease; or that he is impressed with the belief, that it is identical with the ordinary remittent, autumnal fevers of the country, or, having seen it, he may not have sufficiently marked its distinctive characters; or, in fine, he may have allowed himself to conclude, that there are no signs, nor characters, peculiar to it.

The early detection, and confident, full recognition of the disease, if possible, in the very first subjects attacked by it, are the cardinal points upon which the prevention of its spread depends. Thousands of lives may hang on the decision of the medical authority, at this moment. His responsibility is truly awful, and he should be well prepared for the important duty he has to perform. To illustrate this, and to place in a strong light the fatal consequences that would be likely to result from mistaken views, or inexperience, on the part of those to whose professional opinions the lay-authority always appeals, on such occasions; I shall take the liberty of giving the following brief sketch of the breaking out and early progress of an epidemic, which actually occurred, not long ago, in the south of Spain. The facts recorded are taken from the most authentic sources.

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* Both these prudent arrangements have been amongst the standing orders of the garrison, every summer and autumn, since 1813.

† These important precautionary regulations were submitted to Sir George Don, by Dr. Pym, in the spring of 1829, in his code of quarantine arrangements.

In the beginning of August, three or four persons are reported to have died suddenly. Apoplexy, childbirth, and accident, are assigned as the causes of these deaths. Young medical men are sent to examine the bodies, and are either refused permission by the friends, or having superficially examined one, or two, make insignificant reports. The public health is apparently in the most satisfactory state, and had been so for several years. One, two, half a dozen persons, are reported as ill of fever: they are seen without loss of time, by the principal medical officer, and those most in his confidence. It is nothing more than the ordinary fever of the season, and of the country. One, or two more deaths take place; but indigestion, from eating unwholesome food, is assigned and received as the cause. Ten, or twelve, new cases of fever are reported; but they are pronounced to be merely the autumnal, bilious remittent, which occurs every year, and from which, as every body knows, there could be nothing to fear. The old nurses, however, who had seen former epidemics, begin to whisper abroad, that black vomiting and yellow skins have been observed; that the fever seems to spread in families, and amongst persons closely connected; that three or four, whom they name, cannot recover; the words *epidemia,* and *vomito negro,* are heard in suppressed whispers. But still the men of science, scorning to be influenced by old women, and ashamed, perhaps, to retract their opinions, insist that the disease is nothing else than the bilious remittent; that it has been produced by the foul state of certain drains and privies. Scavengers, fumigators, and purifiers of all descriptions, are immediately put into requisition; chemical compounds are thrown into the supposed sources of malaria and pestilence; the temples of the goddess Cloacina are ordered to be nailed up, and all the outlets of infectious effluvia to be hermetically sealed.

In the mean time, ten or a dozen fresh cases of fever, and one or two more deaths, are reported. Expurgating measures are urged with redoubled vigor: yellow eyes and skins, with dark vomiting, become every day more common. The public has taken alarm, and the chief physician states officially, that bilious remittent fever, sometimes, puts on the appearance of yellow fever; but still, that the public health is not below par, and that no apprehension need be entertained of epidemic disease.

It was now September: more than three weeks had elapsed, eight or ten deaths had taken place, and forty or fifty cases of fever had been reported. Every body, except the doctors, was persuaded that an epidemic had already commenced. Public rumor becomes the vehicle of truth: prudent people begin to emigrate; the neighbouring towns catch the alarm; medical men, acquainted with the disease, are sent to examine and report upon its nature, and the infected city is excommunicated by a printed bann and a sanatary cordon, as having a pestilential disease within its walls, before its own authorities were officially aware of the fact, that such disease had broken out.

This blow, severe as it must be considered, was but the least important of the evils resulting from the first cases having been mistaken, or overlooked. A whole month had been lost, not a single sanatary step had been taken, at least no step at all useful, whilst during that time the disease was fixing its roots deeply amongst the population. Hurried and tumultuary measures were now resorted to. Many of the inhabitants were forced, in the open day, to quit their dwellings, knowing, for some hours before, that they were to be so forced.* Great individual hardship and inconvenience were the consequence: some had already fled to other districts of the town, to avoid being sent into camp, and some, under various pretexts, were permitted to return to their dwellings, in a day or two after they had been encamped with their families.

It is almost unnecessary to add, that, under such management, the disease spread with fatal, and rapid strides, and that it destroyed many hundreds of valuable lives, before the end of autumn.

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* Two motives always actuate the Spaniard and the native of Gibraltar to conceal, or dissimulate, by every possible artifice, the existence of yellow fever in their families. 1st. To avoid the inconvenience of being sent into the lazaretto camp, and other sanatary annoyances. 2dly. As the older members of the family have generally acquired immunity for themselves, by having had the disease in some former epidemic, they are averse to their children being deprived of the present opportunity of acquiring a similar immunity, knowing that, at their age, the risk of death is less than it will ever be afterwards, if so exposed to infection.

I have said, in another part of this letter, that the early detection, and steady recognition, of the disease, if possible, in the very first subjects attacked by it, are the cardinal points, on which the prevention of its spread depends. Supposing, then, that all persons attacked by febrile disease, during the suspicious months, are honestly and promptly shown to the chief medical officer; how is he to distinguish this peculiar disease, from the ordinary fever of the country?

1st. The Gibraltar fever never attacks the same individual a second time. This invaluable fact, now established on the firmest basis, and subscribed to by the very warmest supporters of non-contagion and local origin,* divides the population, at once, into two most important sanatary classes: the susceptible and the non-susceptible. If, then, there be satisfactory evidence, that the person reported as labouring under fever has already suffered an attack of the disease, in any former epidemic, we may dismiss all apprehension. The indisposition, whatever it may be, is not the Gibraltar fever. If, on the contrary, it be quite certain that the subject of febrile attack never has had the yellow fever before, or if the evidence on the subject be doubtful, there is cause for suspicion, and therefore for extreme vigilance on the part of the medical authority. The unwilling acknowledgment of the axiom, on which these conclusions are founded, wrung, at last, by dearly-bought experience, from the abettors of the first and third sets of opinions, affords a pledge of wiser management in future, and adds another wreath to the imperishable laurels which Dr. Pym, the practical founder of the axiom, had already gained by its successful application to the saving of human life, and human suffering.

2. We shall suppose the person attacked to be of the susceptible class, and the first symptoms, a sense of cold, or shivering, frontal headach, pains in the back and limbs, flushed cheek, injected eye, nausea, or vomiting the ordinary contents of the stomach, yellowish white, moist tongue, quickened pulse, constipated bowels; succeeded by alternate chills and flushings, heat of skin, short and sparing sweats, if any, sleep none, or uneasy and interrupted; vomiting of bilious matter, pains something like rheumatic; tongue deeply coated, creamy; thirst none, or moderate; eyes much injected, cheeks flushed; the whole countenance sometimes bloated and livid, with somno-

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* Vide Wilson's Historical Sketch in the Lancet, vol. ii. June 12, 1830, p. 425.

lence; an appearance of being drunk; urine high coloured; tenderness and sense of tightness about the epigastrium, and margin of the diaphragm. These symptoms continue, with little or no abatement, though variously combined and modified, from twenty-four to seventy-two hours. Whilst they persist, the patient is still in the first or febrile stage of the disease: their mitigation constitutes the commencement of the second, or apyrectic stage.

If this case be the first, or one of the first that has occurred, no precise determination, as to its nature, can be arrived at, whilst the symptoms have so little to distinguish them from those we meet in ordinary fevers. One or other of the exanthemata may be coming on, or the disease may assume the regular, remittent, intermittent, or mild continued type. The class, however, to which the patient belongs, the season of the year, and, perhaps, some recent occurrences connected with the individual, or the territory, will tend strongly to fix suspicion on such a case.

3. We shall go on, and suppose that no eruptive disease follows the fever we have noticed. The violence of all the symptoms subsides within a few hours; the vomiting ceases; the pulse and skin become nearly natural, or quite so; the pains diminish, the patient expresses himself much relieved, talks of getting out of bed, and perhaps calls for food. This change constitutes the second stage of the disease, the termination of the febrile paroxysm. If the case be about to terminate favorably, the amendment, once begun, continues, and the patient, after the sixth or seventh day, often much sooner, according to the previous train of symptoms, may be pronounced clear of all danger. But the very recovery of such a patient, without a second febrile paroxysm, renders the case doubly suspicious, by depriving it of all analogy with intermittent or remittent fevers. Should three or four other cases, similar to this, occur about the same time, in the same family, or amongst persons closely connected by neighbourhood or intimacy, they would be almost enough to mark the commencement of an epidemic: but we are never left long in doubt.

4. Let us imagine that one of the first cases is about to terminate fatally; some, or all, of the following phenomena will be noticed before death. After the apparently favorable change, which constitutes the second change, has continued for six, twelve, or twenty-four hours, the white of the eye becomes yellow, is still deeply injected, perhaps ecchymosed; the countenance assumes a dirty, leaden hue, and haggard aspect; livid blotches are noticed on various parts of the body; the stomach refuses food; vo-

miting returns; the neck and breast put on a cadaverous yellow tinge, such as is often seen in the dissecting room; there is great sensibility, sometimes excruciating pain and sense of heat, at the pit of the stomach; we find the skin colder than natural; the extremities like marble; dark brown, flakey matter, blackish, or black liquid, are thrown up; there is oozing of blood from the gums; the teeth are covered with dark sordes; the pulse sinks, becomes almost imperceptible; there is hiccup, the most pitiable restlessness, incessant tossing of the head and limbs; urine is no longer secreted; delirium often precedes death by some hours; there is sometimes coma and low muttering, subsultus.* Often the patient is perfectly collected to the moment of dissolution, which generally takes place from the third to the seventh day,

5. If the subject that has died under a train of symptoms, such as those I have just described, be examined after death, the following appearances, or the greater part of them, will be found. The body, though it should not have been yellow during life, will probably become so after death; the livid, or mahogany-coloured patches are sometimes found to have disappeared, or to have changed their position; blackish liquid in the stomach, or bowels, or both; the cardiac lining of the œsophagus red, and stained a shining black, as if japanned; ecchymosed spots, of various sizes and shades of red, on the mucous membrane of the stomach and duodenum. The ulcerated and elevated patches, so usual in the small intestines, in ordinary fevers, are never found in this. The liver either of a uniform fawn or yellow colour, or partly of this colour and partly natural, looking as if it had been partially boiled; its consistence and volume but little changed; the urinary bladder empty, or containing but a few drops of liquid. The other organs healthy, or so inconstantly and slightly altered in structure, as to afford very little worthy of record. Rather a paucity of blood, black and thin. Should the face have been livid after death, as is not unfrequently the case, the opening of the descending cava, or subclavian vein, during the dissection, immediately removes the livor, and leaves a pale yellow, if the head be but slightly elevated.

A single fatal case, such as I have described, carefully watched through its progress, in Gibraltar, during the months of August, September, or October, or a single dissection resembling that just detailed, though the subject should not have been seen, professionally, before death, ought to be quite enough to determine the medical authority to recommend the adoption of the most active measures. But let us suppose that the first six or eight cases have recovered, without manifesting any of the symptoms of the third stage, (which is highly improbable,) it may be urged that these have been only so many slight attacks of feverish indisposition: granted. If, however, those only are attacked, who had never passed the disease before, members of the same family, their visitors, or neighbours; if there be no second paroxysm of fever; if there have been no precursory symptoms; if the bowels be costive, instead of lax, as at the commencement of ordinary fevers; if the headach, the injection of the eye, the coating of the tongue, the flush of the cheek, expression of the countenance, and the general pains, possess the peculiar characters so familiar to those who have witnessed other epidemics, there are the very strongest grounds for suspicion, even before a single death shall have occurred. But yellow eyes, passive hemorrhages, dark vomiting, speedy dissolution, and post-mortem appearances, will quickly remove all uncertainty.

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* Sometimes spasmodic death, as if produced by strychnia, or upas-tieuté poison.

The very first cases of fever, then, that occur about the end of summer and the beginning of autumn, must be carefully observed and faithfully recorded. The subjects of the very first deaths must be minutely examined, and the appearances on dissection accurately taken down in writing, on the spot, and testified by all present. If the *ensemble* of the history, symptoms, and anatomical characters, be such as I have attempted to describe, the real Gibraltar epidemic, or yellow fever, or *vomito prieto*, or Bulam fever, has actually commenced, and will, in all human probability, spread, if efficient measures be not quickly adopted to check its progress.

Under these dreadful circumstances, the safety of the community must not be sacrificed to medical sophistry. The chief health officer is bound, as he values human life, to report immediately to the lay authority, and submit to him the authentic records of the suspicious cases and their dissections. Whatever may be his own views as to the nature of the disease, whatever name, source, or cause he may think proper to assign to it, it will spread, it will destroy hundreds, (and it matters but little whether by contagion, or malaria,) if it be not crushed in the egg. Experience has happily taught us the means by which it may be crushed, at this stage of its progress, and the chief medical officer, who does not know when to recommend, and how to apply, these means, is shamefully unfit for, and unworthy of, the high trust reposed in him.

Whenever medical men have tried to check the destructive march of this disease by merely attempting to cure those attacked by it, or by purifying the spot occupied by the sick, they have invariably failed, and most miserably too. It seems to laugh at remedies, and but too often destroys both the patient and his doctor. *The prevention of attack is the only source of safety.* This is the principle on which Dr. Pym has always acted, and he, beyond all question, has done more towards saving his fellow-creatures from this dreadful scourge, than the whole profession put together, from the days of Hippocrates to the present hour. Indeed, I know of nothing, practically useful, that has been done or established on this subject, except by him, or after his precepts and example. The following are the measures by which he put an end to the incipient epidemic of 1810, in Gibraltar, in the month of October; the season at which, whenever the disease has hitherto prevailed there, its spread and its mortality have been the most remarkable.

Having recognised the fever in the very first individuals attacked on shore, he reported the fact to the lieutenant-governor, without the loss of a single moment, and obtained from him the most ample authority, to take whatever steps he might think necessary to prevent its spread. Not a whisper of alarm was allowed to transpire, lest the sick, or the suspected, should scatter themselves over the territory, to avoid the rigour of sanitary arrangements. "I was aware," says Dr. Pym, "from what I had seen in 1804, that the only way of cutting short the contagion, was by the most prompt and decisive measures, to separate the sick from the healthy, and to prevent any communication between those persons who might be suspected of having imbibed the disease, and the other inhabitants."* Tents were pitched during the day, on the neutral ground, as if for military purposes; and in the dead of the night, when the air was cool, and the streets deserted, a cordon of troops was thrown round the infected district. Persons, who had already passed the disease, conducting carts provided for the purpose, carried off the whole of the sick and the suspected, and deposited them in the tents, on the neutral ground, (now declared to be a lazaretto,) outside the walls of the fortress, where their wants were ministered to, by unsusceptible attendants.

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* Vide Observations on the Bulam Fever, p. 50.

The contaminated district was kept in strict quarantine for fourteen days, and its inhabitants inspected daily, by a medical officer. Persons showing symptoms of the disease, of whom there were several within a few days, ("all neighbours of the first family attacked,") were, of course, sent to the lazaretto, whilst their houses and effects were made to undergo suitable expurgation. "Some cases of black vomit having occurred in the 4th and 7th veteran battalions, then forming part of the garrison, these corps, with their whole hospital establishments, were immediately sent into camp. "Very few men," continues Dr. Pym, "were reported sick after the regiments moved into quarantine; three of them, however, were taken ill in the same tent. Six died from the disease, who were all taken ill in the same barrack room."

I cannot help noticing here a very remarkable case, showing, in the strongest light, the danger of permitting the healthy to use infected bedding. The only member of the first family attacked, who continued healthy from the beginning, was seized on the fourth day after his return to his habitation, and died with black vomiting, in less than seventy hours' illness. Upon inquiry, it was ascertained that the inspector of the district had neglected to wash and purify the bed which this young man slept upon, and which had been used by some of his family, when the disease first made its appearance."*

With this case ended the epidemic of 1810, and thus, by the prompt and judicious separation of the contaminated from the susceptible, the disease was arrested, and the people saved, at a season of the year, too, when (as we now know) this disease usually attains, in Europe, the very acmé of its pestilence and mortality.

If the vigor and promptitude of the medical arrangements adopted during this epidemic, the steadiness of the principles upon which they were based, and the salutary results that followed their application, be contrasted with the vagueness of certain theories, and the disastrous indecision manifested in 1804, and in the other epidemic of which I have already drawn a sketch, there can, I presume, be no hesitation as to the choice of measures, on similar occasions, in future.

I shall now take the liberty of submitting a series of sanitary instructions, founded on the experience of the past, which, if promptly and faithfully acted on, would, I have no doubt, either completely stop the spread of any future epidemic of yellow fever in Gibraltar, or at least effect a large saving of human life. Although these instructions are made to refer, in the present instance, to that garrison only, they will be found equally applicable, with slight local alterations, to any of our other colonies, which may hereafter be visited by a similar calamity.

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* Vide opus cit. p. 53.

1. Let us never lose sight of the grand, inestimable facts, that the Gibraltar fever, in its former visitations, has rendered one portion of the population the invulnerable protectors of the other portion from its own future attacks, and that each individual, as he passes through its ordeal, is not only rendered safe himself, but becomes capable of being made a source of safety to many others.

2. When the disease shall have been proved to exist within the fortress, during the hot months, let the sick and the suspected be immediately removed without the walls, as nearly as possible in the manner practised in 1810, and there kept effectually separated from the healthy, unsuspected, susceptible part of the inhabitants.

3. Let the infected houses and goods be kept in strict quarantine, and purified by water, air, fumigations, and every other means that may be thought advisable; great care being taken that these expurgatory measures be executed by non-susceptible persons.

4. Let no time nor labour be thrown away, at this most important crisis, on cleansing drains or privies. Experience has already proved, most fully, both in Cadiz, in the great epidemic of 1800,* and in Gibraltar in 1828, the perfect inutility, nay, the absolute mischievous tendency of this measure, when adopted after the fever has commenced, with the view of arresting its propagation.

5. Should the infection appear to spread within the territory, notwithstanding the removal of the first sick, all theories must be abandoned, and one maxim must, alone, guide all our measures, viz. *that the disease will stop as soon as the susceptible are separated from contaminated places, persons, and things.*

6. Since, however, it would be obviously impracticable to remove all the susceptible from the fortress, at once, when an epidemic breaks out after a long interval of public health, and when, besides a large portion of the civil population; the whole garrison may belong to this class, as was the case in 1828, we must send outside the walls all move-

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* Vide Vilalba (Epidemiologia Espanola), ann. 1800.

able foci and fomites of contagion, and as many as possible of those capable of being affected by such as cannot be removed.

7. The civil hospital, which stands nearly in the center of the town, should be transferred, with its whole establishment, to the neutral ground, to serve as the nucleus of a civil lazaretto, on the very first breaking out of the disease. Regimental hospitals, also, should be sent out, as the corps to which they belong happen to be attacked.

8. No family, after having been once contaminated, should be allowed to remain an hour in the fortress, particularly at the commencement of an epidemic. Temporary emigration should be encouraged, amongst the civilians, by every possible means, and the whole susceptible population, civil and military, should be scattered over the neutral ground, the ships in the bay, Windmill hill, and Europa flat, as widely as the circumstances of the fortress, and the limited extent of the territory, will admit.[*]

9. Whenever a regiment becomes contaminated, it should be immediately encamped outside the fortress, if it can be spared: if it cannot, on Windmill hill, or Europa flat. There are no other situations within the walls, where the atmosphere is not close and sultry during the summer and autumn, and therefore improper for encampments.

10. The sanitary division of the healthy into the susceptible and the non-susceptible, naturally dictates the classification of the sick into the decided epidemic, the suspected, and the unsuspected. There should, therefore, be three distinct hospital establishments, viz. 1. The foul lazaretto, for pronounced cases. 2. The lazaretto of observation, for those cases which may, or may not, turn out to be epidemic. 3. The free or clean hospital, for accidents and non-susceptible sick. All the attendants of the first and second establishments, medical, clerical, and others, should be kept, if possible, in quarantine.

11. The bed, bedding, and every thing personal to the sick soldier, sent to either of the two first hospitals, should follow the fortunes of their owner. If the sick man should happen to die, his effects will thus remain where they can do no further mischief, viz. in the foul hospital: should he survive, they accompany him to the convalescent depôt, and thence, after having undergone the most careful ablu-

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[*] It is much to be regretted, at least, in a sanitary point of view, that a larger territory was not attached to Gibraltar, when its possession was secured to England by treaty. The high ground, about the Queen of Spain's Chair, would be a most desirable situation for an epidemic encampment.

tions, fumigations, &c., to the suspected quarter within the fortress, on his return to duty.

12. Hospital bedding, properly so called, should be used, as in time of public health, in the clean hospital only. This, of course, implies that the bed and bedding of the unsuspected sick need not be removed from the tents, or quarters of the healthy.

13. There should be three descriptions of camps and quarters, corresponding to the hospital establishments: the foul, the suspected, and the clean, or free. These should be kept distinct during the epidemic.

14. Convalescents, from the foul and suspected hospitals, should be returned to the fortress, as soon as possible after their recovery, placed in suspected quarters, and appointed to the lightest duties at first, distinct from the uncontaminated, until the return of public health.

15. The guards, and all other duties within the town and in the sheltered situations of the territory, should be reduced to the minimum consistent with the safety of the fortress; and, as soon as the original and convalescent nonsusceptible soldiers are sufficiently numerous to perform these duties, the susceptible should no longer be permitted to participate in them.

16. The building called the naval hospital, which, during the most fatal period of the late epidemic, was crowded with military sick, being constructed in the form of a hollow square, at the bottom of a close and deep ravine, should be abandoned as an hospital, on the very first breaking out of any future epidemic. It might, perhaps, be advantageously occupied as a station for nonsusceptible convalescents.

17. The epidemic sick should, as far as practicable, be treated in detached tents, huts, or sheds, so placed and constructed as to admit of the most perfect ventilation.

18. It will not be enough for the protection of the susceptible, nor for the benefit of the sick, that the latter be sent outside the gates, to the north front. They must be so placed as not to be sheltered by the projections of the rock, nor by the outworks, from the currents of cool air which constantly sweep round that face of the mountain, either from the Mediterranean to the bay, or in an opposite direction, whatever point the wind may blow from elsewhere. No spot, therefore, inside the line of the Orillon ditch and Bayside barrier, should be occupied as an epidemic hospital.

19. As the limits of the territory stand defined at

present, on the land side, the most fitting situation for the epidemic sick, on the north front, would be the north-eastern angle of the neutral ground; for the suspected sick, a space near the former to the westward; for the unsuspected sick, still further to the westward: the three establishments to be placed in *echelon*.

20. Should it so happen that the troops in garrison cannot furnish a sufficient number of nonsusceptible orderlies for the service of their own epidemic sick, civil attendants of that class must be employed from the beginning.

21. In the pitching of tents, and particularly in the erection of boarded sheds, care must be taken that they be not huddled too closely together, and that they be so placed with regard to each other, as to allow a free passage for the currents of air mentioned in 18. Nothing tends more effectually to prevent the propagation of disease than open space, and perfect ventilation.

22. As the town was evidently the centre, from which infection emanated during the first six weeks of the late epidemic, it would be advisable, on any similar occasion in future, immediately on the first appearance of the disease, to cut off all communication with the south, by shutting the gates on that side, and to preserve these two parts of the garrison perfectly distinct, at least as long as the people of the south might continue to afford no proofs of being infected. This measure I conceive to be easily practicable, and perfectly compatible with the safety of the fortress.

23. The first and most important steps towards the saving of human life, on the breaking out of this disease, being its early detection, and the firm, unhesitating announcement of its existence to the proper authority. The chief medical officer should, himself, visit and observe every case of febrile indisposition occurring within the territory from the 15th of June to the 15th of November; and should see every dead body, and have it opened in his presence, if necessary, during that period.

I shall conclude by observing, that this disease has preserved the most perfect uniformity of character, in all its visitations to Europe, from its first appearance in 1730, to its latest, the year before last.* That whether it has been, upon these occasions, of indigenous or foreign origin; whether it be propagated by contagion, by malaria, by meteoric influence, or by all these causes, it will spread under certain circumstances, (at least in Gibraltar,) more rapidly and fatally than the plague itself. That multiplied experience has now taught us what these circumstances are, and how they may be avoided by sanitary arrangements, such as I have endeavoured to point out in the foregoing observations.

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* Many acknowledge the reality of two species of yellow fever: one mild, sporadic, noncontagious; the other malignant, epidemic, and contagious.

May I be permitted to hope, sir, that, should these observations meet your approbation, you will bring them, honoured by that sanction, to the notice of those who officially preside over the general welfare of our colonies and garrisons abroad, in order that they may be made available to the general cause of humanity.*

I have the honour to be, Sir, your most obedient and most humble servant,

DAVID BARRY, M.D.
Physician to the Forces.

To Sir James M'Grigor, Director General, &c.

LARVÆ EXCRETED FROM THE ANTRUM.

Case of Diseased Antrum Maxillare, with excreted Larvæ.

By W. L. M'GREGOR, Esq.†

T. T., ætat. thirty-five. 3d March, 1827. States that last night he was seized with excruciating pain in the inside of the nose, extending on each side to the cheek bones and temples. This continued to increase, till at length it became of the gnawing kind, giving a sensation as if something were eating its way through his cheek bones and upper jaw. He now became almost delirious, and endeavoured, by expiring strongly through his nose, to eject the cause of his suffering: this he accomplished by successive efforts, and three or four worms (as he termed them) were discharged from the nostrils perfectly alive. He had now some relief to his suffering, but the pain gradually returned, and it has continued, with little or no remission, during the night. At present the pain occupies the situation of the antrum maxillæ, extending laterally to the cheek bones and upwards, as far as the temporal. Externally there is considerable swelling and redness; the left eye being completely shut, from the tumefaction of the surrounding parts. A bloody fluid, of a most offensive smell, exudes from the nostrils; and previous to the discharge of the worms (larvæ) it is considerably increased in quantity.

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* The Editor is enabled to state, from authority, that Sir James M'Grigor, the Director General of the Army Medical Department, and Sir William Franklin, to whom the above sanitary rules were submitted before they were sent to press, have forwarded a manuscript copy of them to the General commanding in chief, with a letter expressive of their approbation.

† Transactions of the Med. and Phys. Society of Calcutta, vol. iv.

The patient is restless; a tremor pervades his whole body; his hands are constantly applied to the seat of the pain; and, to add still further to his sufferings, he is literally covered with flies. The pulse is small and quick; skin cool. About eight years ago, he had the venereal disease, which has produced caries of the bones of the nose: in other respects he appears to be quite healthy. He had intermittent fever at Cheduba, from which he has completely recovered. The pain was first felt in the parts at present affected, while on the river, about three months ago: it was then relieved by leeches and blisters. He has had no return of it since that time, and has never passed any maggots till the present attack.

What he denominates worms, are evidently the larvæ or maggots of some insect, probably those of a species of musca, which had deposited its ova within the cavity of the antrum, rendered accessible by the effects of the venereal disease. The larvæ are fully half an inch in length, attenuated anteriorly; without feet, and annulated: posteriorly they are black, the rest of the body is white. On being touched, they move about very briskly; a black drop, of a fetid odour, exuding at the same time from their posterior extremity. The irritation produced by the presence of the larvæ sufficiently explains the degree of pain which the patient experienced, and which was, of course, somewhat relieved by their being discharged.

At first leeches were applied, as the most likely means of affording relief to the external inflammation: these produced little effect on the most urgent symptoms. They were reapplied with much the same results. A warm cataplasm was then placed over the parts affected, and the following ℞. Ol. Olivæ ℥ij.; Tinct. Opii ʒi.; Ol. Tereb. gtt. viij. M. was repeatedly injected up the nostrils. These applications were followed by the discharge of larvæ, with slight pain internally. The vapor of Aq. Ammoniæ was next tried as an errhine, and a considerable number of larvæ followed its application. On the second day, a drachm of sulphuric ether was poured on a pint of boiling water, and the vapour inhaled through the nostrils. In the course of this day, no less than sixty-four larvæ were discharged. Next morning, an infusion of tobacco, in the proportion of ten grains of the leaf to a pint of boiling water, was injected up the nostrils. The larvæ now appeared less lively, and their numbers rapidly diminished.

On the fifth day from admission, the swelling had completely subsided, the pain was almost gone, and the patient expressed himself perfectly recovered. The number of larvæ discharged during the whole period amounted to upwards of one hundred, and they were all in a live state.

PUERPERAL FEVERS.

Observations on the Puerperal Fevers which occurred at the Maternité of Paris in 1829; on the various Modes of Treatment that were adopted, and particularly on Mercurials, Emetics, and Bloodletting. By M. TONNELLE.

(Continued from our November Number.)

Puerperal Fever cured by Mercury; Recovery tedious.

V. ROSE PATH, æt. twenty-four, of a sanguineous temperament and strong constitution, was attacked, the second day after a preternatural labour, with symptoms of violent metro-peritonitis. During the first days, 220 leeches were applied at five times; and emollient baths, mild enemas, poultices, and oily laxatives, were employed after each local bleeding. These remedies were followed on the sixth day by a slight and but temporary amendment. In the night the patient vomited and shivered.

Seventh day: belly swollen and uniformly painful; face pale and drawn, skin dry and burning; pulse small and hard; her look and general appearance indicated prostration and stupor; the breasts were shrunken; no lochial discharge. M. Desormeaux, under these circumstances, directed the use of mercurial frictions. On the second day of their employment, there was a temporary alleviation of the symptoms. On the third, they became more severe, and fifty leeches were applied. The sixth day, decided improvement, and copious perspiration, with a puriform discharge from the vagina. The mercurials were discontinued. Ten ounces and a half of the ointment had been used.

Sixteenth day: acute pain in the side, with cough and expectoration, for which eighteen leeches were applied. These symptoms subsided on the following day.

Nineteenth day: commencement of salivation, and return of very abundant sweating. For some days the salivation greatly increased, and attempts were made to moderate it by slight astringent gargles and castor oil.

Twenty-seventh day: pain in the epigastrium; clammy and bitter taste in the mouth; anorexia, nausea, and slight fever. Eighteen grains of ipecacuanha were given. Copious vomiting, and several stools, followed, and the patient was much relieved.

Thirtieth: pain in the chest and cough. Blister applied.

Thirty-seventh day: still weak and salivated, but she quitted the hospital free from danger.

This case appears to us very interesting, inasmuch as it was necessary to assist the constitution in its endeavours to get rid of the mercury, by which it was overloaded, and which had been rapidly introduced in large quantities. Chemical analysis has proved that it remains unchanged in the body, and our physiological knowledge informs us that it cannot be assimilated to any parts of our frame. It must therefore be expelled, and its expulsion can only be effected by the different emunctories, the skin, mucous membrane of the intestines, and the vagina, which will eliminate it, mingled with sweat, alvine discharges, and the lochial flux. When we perceive the great increase of all these secretions which follows the introduction of a large quantity of mercury into the system, we are fully justified in presuming that, by these various organic acts, the foreign material is eliminated. But these efforts are not always confined to the skin and intestines: they may extend to the stomach, and even to the serous membranes and parenchymatous structure, as was the case in the last instance. In the former case they are to be supported, but in the second they must be opposed. In the one they are salutary; in the other dangerous, and perhaps mortal. Thus, at the same time that M. Desormeaux attacked by leeches and blisters the increased action which tended to establish itself in the thoracic organs, he assisted that which occurred in the stomach by ipecacuanha; but if the proportion of mercury is too considerable, and the organic powers are languid, and incapable of removing it, death may be the result. We have seen some cases of this kind.

Occasionally, after the mercurial treatment, deep-seated indurations and purulent collections remain, which keep up a slow fever, with evening exacerbations, by which the strength of the patient is exhausted. These secondary symptoms, which sometimes also appear after the treatment by bleeding and vomiting, were resisted with success by mercurial frictions in small quantities; not more than one or two drachms each day: and it was even necessary in some instances to suspend this treatment for a time, and afterwards to resume it. Under these circumstances, M. Desormeaux combined the use of ointment of hydriodate of potash, laxatives, and tonics, as infusion of bark or calumbo. We must again observe, that the practice of mercurial inunction was more generally unsuccessful than otherwise:* but still we should not be inclined to abandon its occasional employment, as it was certainly successful in some cases when all other means had failed.

EMETICS, and particularly *Ipecacuanha.* From a prejudiced and abstract idea of inflammation, we are too much inclined to regard every means with mistrust, in inflammatory diseases, which are not decidedly antiphlogistic. Educated as we are in the deceptive belief that a state of inflammation can only require bleeding and emollients, we reject every other medical plan, as opposed to the previous views we have imbibed of that condition, of the nature of which we are still, however, completely ignorant. We cannot too earnestly endeavour to free ourselves from the trammels of such mischievous prejudices: they are alone sufficient to obstruct the progress of therapeutics. We should remember that theories of disease are not yet firmly enough established, to justify us in founding upon them, exclusively and alone, our various plans of treatment. In the present state of our art, when experience has proved the utility of a remedy, we should employ it without hesitation, whether or not it agrees with our theoretic notions. Thus says SYDENHAM upon another occasion, "Si suffragante experientiâ deprehendo hancce febrem, evacuationibus per diaphoresim factis, libenter cedere, habeo quod quæro: neque enim.... ratiocinatio, sed potius experientia docere poterit, quænam febrium species diaphoreticis, quænam verò alius modi evacuationibus, sanari possint ac debeant?"

We shall inquire, from experience, whether emetics are successful in the diseases of which we are treating; and, if we are convinced by careful observation that they are, we shall resort to them without anxiety. WILLIS, WHITE, ANTOINE PETIT, and many other physicians, employed emetics, and particularly ipecacuanha, in the treatment of puerperal fever; but it was not until 1782 that they were exclusively used by DOUCET, of the Hôtel Dieu. From this time emetics were in high repute, and perhaps their merits were somewhat exaggerated. It appears that they were more successful in some particular seasons of the year, as the summer and autumn, during which periods the form of the disease was peculiar. (LEAKE *on Childbed Fever*, 139, 144, 145.) These results ought to have sufficed to place emetics in their proper rank: but, instead of remembering the observation of all the best authorities, that particular states of the atmosphere influence diseases in general, and especially epidemic diseases, and give to them such variable characters as to entirely change our therapeutical indications, it was inferred that ipecacuanha was too uncertain a remedy to be relied upon. This medicine had at first been recommended with too much enthusiasm, and when it was found to be incapable of fulfilling all the expectations that had been raised, it fell into utter discredit. Other causes contributed to destroy the reputation of ipecacuanha. To the theory of a metastasis of the milk, which had tended very much to increase the general confidence in its remedial powers, other ideas of the nature of puerperal fever quickly succeeded. **Pinel**, **Bichat**, &c. ascertained that inflammation of the peritoneum was the pathological condition to be relieved, and ipecacuanha was deemed incompatible with a disease of such a nature. As the theory of a metastasis of the milk had established the character of emetics and purgatives, that of inflammation, in its turn, led to the adoption of bleeding and antiphlogistics. It was at length concluded that the employment of emetics, in peritonitis, was not only useless, but even absurd and dangerous. Still, however, some physicians, opposed to abstract systems, and faithful to the result of observation, continued silently to employ them. **Hufeland**, **Osiander**, and many other foreign practitioners, proved their frequent success. M. **Recamier**, at the Hôtel Dieu of Paris; Dr. **Cliet**, at Lyons; M. **Tonnelle**, senior, in the course of his extensive practice, and many others, derived much advantage from the use of emetics. At the Maternité, M. **Desormeaux** first tried emetics towards the latter end of 1828, with great benefit. During the greater part of the following year, they failed in most cases to relieve the disease, but the symptoms were never aggravated by their employment. In September of 1829, whilst a very destructive puerperal epidemic raged, and the weather was cold and humid, emetics were again given with the happiest effects. It is true that every case was not cured by this means, but many were cured "comme par enchantement." Towards the end of October, emetics gradually lost their influence. In November they appeared perfectly useless, and their employment was suspended until circumstances arose which appeared more favorable for their application.

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* This result might be expected, as the practice was not adopted until the disease had assumed a very formidable appearance.

The following cases will more particularly show the different individual conditions in which ipecacuanha was used, and also the mode of action of this remedy. We shall divide them into two classes: 1st, those which at once yielded to ipecacuanha alone; 2d, those in which the puerperal fever was relieved by it, but in which other auxiliary means were required.

Puerperal Fever cured by Ipecacuanha alone.

Case I. Math..., æt. twenty, of a weak constitution and variable health, was admitted into the Maternité, 11th September, 1829. She was delivered the next day of her second child, without any unfavorable event. Second day from her confinement, she had several shiverings, and severe pains in the abdomen; lochia suppressed. Forty leeches were applied, and a warm bath ordered. Blood was freely drawn by the leeches, but no relief was obtained. Shiverings were more frequent, and the pains more acute during the night. In the morning, the belly was very tender, and could not bear the slightest pressure; skin dry and hot; nausea, headach, and fever. Eighteen grains of ipecacuanha were given, and, in case it did not produce a favorable effect, forty leeches were to be applied in the evening. The emetic was followed by several bilious vomitings, numerous and abundant alvine evacuations, and excessive sweating. The relief was immediate and decisive. Leeches not applied. The pain almost wholly disappeared, pulse became natural, and the patient enjoyed several hours calm sleep.

Fourth day: lochia reappeared.

Fifth; breasts tumid. No other symptom remaining, but slight sensibility in the hypogastrium, which subsided in a few days, by means of rest and warm baths.

Case II. E. Bus..., æt. thirty, of good constitution, had the first symptoms of peritonitis the second day after her second labour. No advantage was derived from the immediate application of forty leeches. Next morning, acute abdominal pains, which were much increased by motion or pressure; nausea; tongue clean; great anxiety; rapid pulse; lochial discharge nearly suspended. Eighteen grains of ipecacuanha were given immediately. Vomiting, and free evacuations from the bowels, followed. The patient was much better during the day, and she very quickly and completely recovered.

Case III. Sophia Laroche, æt. thirty-eight, of good constitution, had a laborious delivery. It was necessary to turn the child. The evening of her delivery, she had pains in the abdomen and shiverings. In the night, fever and great anxiety.

Second day: abdomen swollen and very painful, especially in the hypogastric region; tongue dry, and covered with yellow fur; skin burning; pulse small, hard, and frequent; lochial discharge continued. Ipecacuanha was given, after which the patient threw from the stomach a quantity of mucous fluid. She had several evacuations from the bowels, and a copious sweat broke out.

From this time she gradually improved; and on the fifth day was perfectly recovered.

Case IV. Aum..., æt. thirty-one, of sanguineous temperament and vigorous constitution, had suffered much during her pregnancy, but her delivery was very favorable. During the two days after her confinement, she had after pains, and occasional colic.

Third day: shivering and severe pain in the epigastrium, with fever, dyspnœa, and intense headach, face pale and drawn; skin hot and dry; tongue yellow; lochial discharge, which had at first been abundant, was entirely suppressed. Eighteen grains of ipecacuanha were given, and she vomited a large quantity of bilious matter. The abdominal pains ceased during the day, but returned in the night, and prevented her from sleeping.

Fourth day: belly neither painful nor swollen; pulse still hard and quick. A lohock, with kermes mineral, was prescribed.

Sixth day: the patient was in a very satisfactory state, and she soon left the hospital.

Case V. Cail..., æt. thirty-one, in good health, had a favorable labour, the 2d October, 1829.

3d. Slight fever, and some pain in the hypogastrium.

4th. Belly tympanitic, and tender on pressure; some nausea, headach, and heat of skin; breasts diminished in size, and the lochial discharge had nearly ceased. M. Desormeaux prescribed eighteen grains of ipecacuanha. The patient vomited but once, but she had seven or eight abundant evacuations from the bowels, followed by copious perspiration.

5th. Pain had ceased; pulse still quick.

6th. She had a paroxysm of fever, accompanied by vomiting; but during the day the bowels were freely open, a sweat broke out, and all the symptoms were much relieved.

7th. Still slight sensibility in the iliac fossa. Pulse natural; lochia reappeared; breasts contained milk. The patient left the hospital.

The beneficial effects of ipecacuanha cannot be doubted in these cases; but still, as there exists many prejudices against its use, we shall spare no pains to remove them. Those authors who have denied the efficacy of the treatment we are discussing, have presumed that the diseases in which it has been successfully employed were not true cases of puerperal fever. It has been said that the symptoms arose from gastric disturbance, uterine pains, or some other trifling affection. We know not whether such mistakes may have occurred, but the above cases will not admit of scepticism. The various symptoms detected characterised very strongly the nature of the malady: prolonged shiverings; abdominal pains, sometimes very severe, and augmented by motion or pressure; nausea, vomiting, diminution or suppression of the lochia, shrinking of the breasts: to all which may be added different constitutional symptoms, as heat of skin, headach, anxiety, quick and hard pulse. The intensity and rapid progress of the symptoms left no room for uncertainty: it was clear that a very serious malady was announced. In all the above cases, it is evident that ipecacuanha was the effective agent in the cure: in some of them, other means, it is true, were adopted, but without any benefit. As a proof that the unassisted efforts of nature would not have been sufficient to carry the patients safely through the disease, we may observe, that the symptoms did not evince any disposition to abate: on the contrary, they continued to increase. M. Gasc and other writers have suggested that the success of the treatment depended upon peculiarity of constitution, or upon the disease being complicated with gastric derangement. In reply to this it must be remarked, that M. Desormeaux did not, when he employed ipecacuanha, select any particular cases of individual peculiarity, which may often be found in the sporadic forms of the disease: the treatment was adopted during an epidemic "qui fait taire les individualités." Emetics were given without selection to women of a sanguineous or lymphatic temperament; to the irritable and tranquil; and in very few were there any symptoms of derangement of stomach present.

These cases confirm the axiom, which is as old as the science of physic, that in epidemic diseases the same remedies are not applicable to different epochs: *sunt alia aliorum annorum remedia.* Ipecacuanha was employed, if not at the very commencement, at least in the first stage of the disease. FOTHERGILL (*London Med. and Phys. Journal,* vol. iii.), and other physicians, have therefore considered it to be rather a prophylactic than really a curative remedy. But this is not the case, as it was not employed until the disease was fully developed.

We shall now relate some cases of the disease which were cured by ipecacuanha and other secondary means.

CASE VI. Lavois..., æt. twenty-nine, of a lymphatic temperament, and generally in good health, was attacked, the day after an easy labour, with the symptoms of very severe metro-peritonitis. In the night, the pains were so severe as to deprive the patient entirely of sleep. In the morning they were still increased, and extended over the whole abdomen, but were particularly acute in the hypogastrium. Neither motion nor pressure could be borne. Countenance pale and drawn; tongue white, burning heat of skin, pulse hard and frequent, lochia not much diminished. M. Desormeaux ordered eighteen grains of ipecacuanha. The patient vomited bilious matter eight or ten times, and had many abundant bilious evacuations from the bowels.

Evening: much relieved, and in a profuse perspiration. She had a good night.

Fourth day: belly free from pain; pulse natural; breasts enlarging.

Sixth: pain again in the hypogastric region, with shivering and fever. Forty leeches were applied; warm bath, and a laxative mixture. By these means the patient was greatly relieved. The symptoms gradually subsided, and on the ninth day from the attack she left the hospital in good health.

Case VII. Chante..., æt. twenty-eight, of good constitution, had suffered considerably during her pregnancy, towards the termination of which she became generally anasarcous. She was delivered on the 26th September, 1829, after a good labour. In the evening of the fourth day afterwards, she complained of shivering and acute abdominal pains. In the night, the size of the breasts diminished, and the lochia was completely suppressed.

Fifth day: belly tympanitic, and painful on the slightest pressure. Vomiting; face pale and contracted, and covered with sweat; appearance of excessive weakness; great anxiety; burning skin; small and wiry pulse. Ipecacuanha was prescribed, and its success surpassed every expectation. The patient vomited up bilious matter, and perspired freely, and was then much relieved. She passed a good night.

Sixth day: countenance natural; belly supple, and not painful; lochia reappeared.

This improvement continued for some days, but on the tenth she had shivering and great pain in the left hypogastrium. Twenty-five leeches were applied, with some relief. There still remained pain and a deep-seated fulness, which were not removed till after five or six days, by mercurial frictions, in the quantity of two drachms every twenty-four hours.

The beneficial effects of ipecacuanha are still more remarkable in those last cases, than in the former. The character of the disease was more severe. In the last patient particularly the symptoms were very strongly marked, and indicated the commencement of suppuration; and still the favorable action of the remedy was promptly seen. In the various cases we have first related, the pain rapidly disappeared by the unassisted action of ipecacuanha; but it occasionally happens that it continues in a diminished degree, and then the application of leeches becomes necessary to dispel it entirely. It appears that the emetics acted principally upon the stomach, bowels, and skin, producing vomiting, free alvine evacuations, and sweating. These different effects were not manifested equally in every patient. When slight vomiting was produced, the bowels and skin were more freely acted upon, and *vice versâ*. After these evacuations, the patients were generally soon relieved; but, if no amelioration of the symptoms followed in the course of a few hours, or a day at most, no benefit was expected from emetics, and some other plan of treatment was adopted. We conceive that the advantage derived from the ipecacuanha depends upon its powerful action upon the different organs we have mentioned. Such is, indeed, the admirable unity of the living economy, that the action of one part cannot be greatly increased, without a corresponding diminution in others. This fact applies especially to the dermoid, mucous, and serous membranes. It is impossible that either of these can be called into powerful action, without the functions of the others being diminished; and it appears to be in conformity with the laws of healthy physiology, that the sudden production of such important organic actions as those above enumerated, should neutralise that morbid process which we call *inflammation*, particularly at its commencement. In the complicated act of vomiting, there are also other circumstances not to be passed over: an afflux of blood is determined to the stomach, spleen, liver, and pancreas, and consequently the uterus, and the hypogastric portion of the peritoneum, are rapidly unloaded of blood. We think these speculations are plausible; but whether they be admitted or rejected, is unimportant, inasmuch as we rely upon the facts above stated.

The three principal modes of treatment adopted by M. Desormeaux have now been described, viz. general and local bleeding, mercurials, and emetics. We have now briefly to refer to certain auxiliary remedies, the utility of which, although secondary, is incontestable: tepid emollient drinks in small quantities, cataplasms, warm baths, and oily laxatives, were generally employed during the period of inflammation, conjointly with local or general bleeding, to the success of which they very much contributed. Warm baths were only serviceable when the skin was dry and hot, the pains not very severe, and the strength of the patient but little diminished. When such was the case, they were always beneficial: their use was followed, in general, by slight perspiration and tranquil sleep. We should abstain from this remedy when the pain is excessive, or there is great anxiety, with either general or partial sweating, abundant evacuations from the bowels, great debility, hurried breathing, flushed face, or intense headach. When these symptoms were present, the patients could hardly bear the warm bath, and never derived any advantage from it. The greatest precautions were taken to prevent the patients from catching cold while using the bath.

The hip bath was more frequently employed; and injections of barley water thrown into the uterine cavity, by means of a tube of elastic gum, pierced at its extremity like a watering pot, were very often used. These injections were repeated four or five times a day: they tranquillised irritation of the uterus, and effectually cleared away any putrid matters which had collected upon the internal surface of the organ. In this point of view, injections are of the utmost importance, and, as an illustration of their utility, we may refer to the well-known case of Peocolin, related by M. DANCE. In this instance very serious symptoms arose from the putrefaction of a retained placenta, and injections thrown into the uterus were of the utmost service. Cases of a similar kind are related by Dr. AMAR and other writers. It is probable that in such instances the putrid matters in contact with the uterus are absorbed, and carried into the general circulation, and they produce the same symptoms which arise from absorption of pus. The following case appears to confirm this opinion.

Marie Ambl... was attacked with symptoms of severe metroperitonitis. After a few days, the inflammatory symptoms subsided, were followed by typhoid symptoms, and the patient rapidly sunk.

Dissection. The internal surface of the uterus was covered with a semi-fluid and very fetid brown matter; which was also detected, unaltered, in almost all the branches of the ovarial and hypogastric veins. Peritoneum highly inflamed.

This case does not require any long comments. It cannot be supposed that the putrid matter entered the vessels after death: it was found in some branches in which it could not have gravitated by its weight; and the mouths of the vessels were too large to admit of capillary attraction. It must therefore have been absorbed during life.

Whenever constipation existed, laxatives and clysters were used with much benefit. Castor oil, combined with oil of sweet almonds and syrup, and calomel with opium, were generally preferred by M. Desormeaux. From a slight diarrhœa produced by either of these means, advantage was always derived. When diarrhœa arose spontaneously, it frequently became excessive, and it was necessary to moderate rather than provoke it. Opium, or extract of henbane, in clysters, or more frequently in pills, was commonly employed to fulfil this indication. By these remedies pain was also relieved, and the nervous system was quieted; but we are far from attributing to narcotics the striking good effects which some physicians have ascribed to them.

There are two other remedies, the utility of which has been denied by many authorities, but which in some cases are decidedly useful: quinine and blisters. Bark was frequently employed by the ancients in puerperal fevers. To name all the physicians who have recommended it, would be to cite nearly all those who have written on the disease: it may be sufficient to refer to WHITE, DOUBLET, LA ROCHE, LEAKE, &c. But these distinguished practitioners employed this remedy only in the typhoid forms of the disease; and it was in such cases that M. Desormeaux had recourse to it. It is essentially necessary to be careful that the case is favorable for its employment. When, after inflammation of the womb, those symptoms arose which indicated the absorption of pus, and at the same time the local symptoms disappeared; when there was sinking and stupor, sloughs upon the sacrum or genitals, without heat of skin, or any decided febrile reaction, preparations of quinine were decidedly useful. Under its influence, the countenance of the patient sometimes quickly regained its natural expression; the pulse became regular, diarrhœa was suspended, and strength was restored. Quinine was also successfully prescribed in those long and difficult recoveries which followed the mercurial treatment, and in which the general economy appeared to be exhausted by purulent infection, as well as the effects of the treatment by mercury. In severe cases of the disease, where the various functions were so oppressed as to threaten the rapid destruction of the patient, quinine often roused the various organic actions; but to fulfil this indication, no remedy was more beneficial than blisters applied to the legs or thighs. They frequently rallied the nearly extinguished vital powers, and gave time for the exhibition of other remedies. In some cases they ensured the success of mercurial frictions, which, without their assistance, would inevitably have failed. It will easily be conceived that the stimulant action of blisters, which renders them so valuable in the cases to which we are now especially referring, must contraindicate their application where there exists even a very moderate febrile reaction. Blisters upon the abdomen we have never seen applied: experience has proved their injurious effects when thus employed.

Such are the various secondary means which M. Desormeaux combined, in various ways, according to particular indications, with the three principal modes of treatment before described.

M. Tonnellé gives a table at the termination of his paper, showing the comparative success and failure of the various modes of treatment he has described, and also the influence which different seasons of the year appeared to possess in modifying the effects of the chief remedies employed. The character of the puerperal fevers which occurred at the Maternité varied, not only in different years, but in different months of the same year. During July and November, the disease yielded more readily to bleeding; in August, to mercurials; and in September and October, to emetics. General bleeding was much less frequently required than local depletion. In summer, the disease was frequent and severe: in winter it occurred less often, and was of a more benignant type.

PERFORATION OF THE STOMACH.

Case of Perforation of the Stomach by Ulceration. By Dr. Levi Rawson, of Grafton, Mass.*

Richard Gibbs, an Englishman, a dyer by trade, aged thirty-six years, came to this country in 1823; had enjoyed uninterrupted health till about a year since; was of a hale, robust constitution; temperate in the use of ardent spirits, but rather a large eater; had been a hard labouring man, and lived well.

January 1st, 1830, first called on me for advice; said he had not been so well as usual for several months past; had been troubled with nausea and pain in the left hypochondrium; frequently vomited his food, which was apt to distress him; complained of coldness of his extremities; pain in his right shoulder, and the right side of his neck, face, and head; his bowels were costive and flatulent; stools dark-coloured; appetite fastidious; countenance pallid; pulse small and weak; system generally debilitated. I gave him ten grains of ipecacuanha and twenty of calomel, and ordered spare diet. Next day I saw him, medicine had operated well, and he felt much relieved. As he complained of some pain in his stomach and bowels, I ordered him ten grains of Dover's powder night and morning, a continuance of light diet, and a rhubarb pill every night on going to bed, In a few days he resumed his work, but either from irregularity of diet, or from taking cold, he was frequently, during the winter, for a few days at a time, unable to work. He continued in this state, working a few days, then being sick a few, till about the middle of February, when he was prevailed on to leave off labouring entirely, till he had obtained his usual health and strength. By the use occasionally of a few grains of ipecacuanha, a laxative pill, and small doses of Dover's powder, he had to all appearance, by the 1st of April, regained his former health, and he again commenced his labour, (every symptom of disease had left him, except an unusual coldness of his feet and calf of his legs,) he would frequently complain of the coldness of them as being almost insufferable when they felt to me extremely warm.

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* American Journal of Med. Sciences.

14th of May I saw him; said he had taken cold the day before; felt sick at stomach; feces dark coloured; bowels flatulent; wished for a little ipecacuanha to take at night. The next day he felt better.

May 22d, five o'clock, A.M. I was sent for in haste to see him; was told he was in a fit. This morning he went to his work as well as usual; while he was raking a vat he was taken with a severe pain in the epigastrium and right hypochondrium, which soon extended to the pubic region. He fell beside the vat, but in a few minutes he recovered so as to be able to walk to the store, a distance of ten rods. He called for some brandy, and drank about two thirds of a glass. Almost as soon as the brandy was down, he fell upon his face on the floor in violent pain, and said he could not live long unless he got easier. In this situation I found him: countenance pallid and indicative of great distress; pulse small and weak; universally cold; abdomen very tender, rigid, hard, and drawn in; short breath; nausea; great pain all over the abdomen, but greatest in the pubic region; pain in his right shoulder; spasms of the muscles of the right side of his neck and face. He said if the pain came back to his stomach it would kill him; put him in great pain to be moved; could not be turned towards his right side. I gave him three ounces of castor oil and some warm drinks; had him carried to his dwelling-house, distant twenty rods, put into warm blankets, and hot bricks applied to his feet and legs. Vomited some of his drinks and oil. Gave him two grains of opium and twenty of calomel; ordered stimulating enemata, (four were given without bringing any thing away;) put him in a warm bath; staid in twenty-five minutes; easier while in, but complained of great weight in the pubic region. Nothing passed his bowels. Put him into warm dry blankets again; bled him sixteen ounces; blood sizy. Ordered woollen cloths rung out in hot water to his bowels, and repeated the injections.

Twelve o'clock, M. Nothing had passed his bowels; the injections came away without bringing any thing with them; every symptom aggravated; easiest in an erect posture. From a review of the symptoms, the operation of the medicine, as well as the violence and obstinacy of the case, I now was convinced there must be a rupture either of the stomach or bowels. I told his friends and the bystanders my views of his case, and informed them, that, if I were right in my diagnosis, his case was inevitably fatal. They wished me to persevere, saying it might not be so bad as I apprehended, as if it were he could but die.

I shall not give the treatment any further, suffice it to say, that I considered, if he ever were or could be relieved, it must be by procuring a free passage through the primæ viæ; to this end were all the usual means directed: I had recourse to all the means usually tried in violent cases of colic.

About four o'clock P.M., some of the injections came away with feces and considerable wind, which gave him a little ease for a few minutes. He slept a little in an erect posture, but he soon grew worse, vomited some of his drinks, extremities became cold, pulse fluttered, strength failed, and he expired at eight o'clock A.M. on the 23d of May, twenty-seven hours from the time he was taken.

I examined him twenty-six hours after death, assisted by Dr. Tenney, of Sutton, and Mr. Vuile, a medical student. Abdomen a little distended, tense, and the hypogastric region discoloured. On opening the abdomen we found the contents of the stomach in this cavity, surrounding the abdominal viscera; the bowels were considerably distended with wind and the injections: there was a general inflammation of the peritoneum, bowels, and every other part with which the contents of the stomach had come in contact, but the inflammation was greatest in the hypogastric region. On examining the stomach, about midway between the cardia and pylorus, on the anterior surface, near the edge of the lesser circle, we found a perfectly round hole, seven eighths of an inch in diameter, resembling a hole bored with a tapering auger from within outward; its surface was of a dark colour. The parietes of the stomach, about fifteen lines round the perforation, were considerably thickened and hardened; the mucous membrane appeared healthy up to the edge of the perforation; there was an adventitious membrane, by which (as it appeared) the stomach had adhered to the under surface of the lesser lobe of the liver, and to which in part we found it adhering: the adhesion was not very firm. Having preserved the stomach, I have not cut into its thickened part; wishing to keep it entire. On the under side of the stomach, opposite to the former, there was a commencing perforation of the same size as the other, and perfectly resembling it: it had partially penetrated through the coats of the stomach. The parietes of the stomach round the latter were not so much thickened as round the other; and the peritoneal coat about an inch round it, was inflamed.

The perforation of his stomach must have been caused by ulceration, which commenced in the mucous membrane, and must have been of several months' standing; but the adhesion of the stomach to the liver, which probably took place previous to the perforation, prevented its contents escaping so long as it remained entirely adherent. The edge of the kettle over which he was leaning while raking the vat when he was taken, came against the stomach, and ruptured the adhesion, and the stomach being pressed, some of its contents immediately escaped into the cavity of the abdomen.

HOSPITAL REPORTS.

ST. BARTHOLOMEW'S HOSPITAL.

Hydrocephalus: Operation of Tapping the Head.

DR. CONQUEST recently exhibited, at St. Bartholomew's Hospital, another case of water in the head, from which he had withdrawn, by two operations, thirty ounces of fluid. At the first operation, twelve ounces were taken away; and at the second, eighteen. The child is apparently well, the bones having nearly closed, and the patient free from any evidence of disease, although before the operation it had fits almost constantly, and was altogether a most deplorable object.

Dr. Conquest took this opportunity of stating, that the girl on whom he successfully operated last year continues in perfect health, not having a vestige of her former disease. The report of this case is given in our Journal for May last.

In the Lancet of November 20th, it is stated that Dr. Conquest has a *third* case under his care, for the relief of which he has already operated four times, and proposes very shortly to perforate the head a fifth time. The total quantity of fluid hitherto taken away is about forty ounces. The operation was performed twice before his pupils at the hospital. A cure is not expected, but the relief has been decided. Dr. Conquest, on Tuesday evening, had the child, about seven months old, brought into the theatre, whose head he had punctured on the above occasions, in consequence of hydrocephalus. The head appeared enormously swollen, its veins very much distended, the bones separated to a great extent, and the skin covering it had a shining appearance. A fine trocar was introduced through the coronal suture, on the left side, just above the squamous portion of the temporal bone, and carried into the lateral ventricle: upon withdrawing it, about twenty ounces of a transparent fluid were evacuated. As the fluid escaped, pressure was made on the head in every direction, by means of adhesive plaster. When all the fluid had been evacuated, the wound was closed by a strip of plaster. Dr. C. stated that, in his former operations on this child, the fluid that was voided was tinged with blood, and portions of brain were mixed with it.

HOTEL DIEU.

Cases of Chorea, treated by Cold Affusions.

CHOREA is one of those maladies, the treatment of which is still purely empirical, inasmuch as we know neither its seat or nature. For many years M. DUPUYTREN has successfully employed a mode of practice, which is simple and easily carried into effect. It consists either of cold baths or cold affusions, according to the case; they are applied in the following manner: The arms and legs of the patient are held by assistants, and his whole body is rapidly passed through a cold bath. The immersion lasts but an instant, and must be repeated five or six times in the space of a quarter of an hour or twenty minutes. At first, violent spasms of the muscles, especially of those of the chest, are produced, and the shock experienced is very disagreeable, but habit much diminishes this painful sensation. After the immersion, the patient is carefully rubbed dry, and he is made to walk about and take rather violent exercise for half an hour or an hour. At the end of a few days, some improvement is almost always obtained, and occasionally, in a very short time, as fifteen days or a month, attacks of chorea, which have existed for many years, are entirely prevented, and no trace of the malady remains. M. Dupuytren usually prefers the simple affusion of cold water over the head and body for female patients. She is placed in an arm-chair, and the effusion is repeated seven or eight times in succession. The effects are very similar to those which arise from immersion, and are equally successful in overcoming the disease.

Case I. A youth, named Repsil, aged sixteen, was admitted in April 1830. For many years he had been subject to chorea: he was never able to regulate the movements of his limbs; they were almost constantly in great and irregular action. The arms and legs were both affected. The right arm, however, appeared to be the most seriously affected: it was thrown into the most extraordinary positions. The face was very little disturbed; he walked in an uncertain and comical manner. He was at first ordered a decoction of valerian, and then the cold bath was used daily, in the way described above. On the fourth day, he was much better: the movements of the limbs were less sudden and irregular, and more under the control of volition. The cold bath was regularly continued, and the cure gradually proceeded. The patient could very soon direct the motions of the upper extremities, and was able to walk more firmly. Five weeks after the commencement of the treatment, he was entirely relieved from his distressing infirmity. The decoction of valerian was continued during the whole of the time.

Case II. A sister of the above patient, aged thirteen and a half years. She had never menstruated, and was of a very delicate constitution, but had never suffered from any severe disease. Three years before, she had been attacked by chorea: no cause could be assigned for it. No particular treatment was adopted, and in about a year the disease spontaneously subsided. Three months before her admission, the symptoms reappeared with additional severity: the whole body was affected. The irregularity of the movements were neither so extreme or uncontrollable as in her brother's case; but still she was incapable of assuming any determined position either of her body or limbs. Cold affusions alone were employed; they were repeated twelve times the first day. The water was poured downwards from the shoulders, the patient being placed in an arm-chair. The affusions were regularly repeated every day, and no other treatment of any kind was employed. In twelve days she was shown in the theatre, with scarcely a single trace of the disease. In this case M. Dupuytren was determined to prove the good effects of the practice, by not employing any other remedy.

A third patient, who had been labouring under chorea for a month, was cured in three weeks by the same means.

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*Inflammation of the Hernial Sac.**

AMONG the various tumors which appear in the groin, there is one which deserves attention, and which has recently been made the subject of a memoir by M. DUPARC. This species of tumor is constituted by inflammation of a hernial sac, causing adhesions to the neighbouring parts, the intestine not being implicated. It arises in the following manner: After compression by the unskilful application of a bandage, or from the dragging of the parts, the hernial sac inflames, and diminishes the diameter of the opening through which the intestine or omentum passes: these parts are thus kept in the abdomen. The inflammation continuing, the opening is obliterated; a certain quantity of serum is thrown out, and, from the swelling which arises, the local and general characters of the disease may be mistaken for those of a phlegmonous abscess, or rather a strangulated hernia. This termination, which ensures the radical cure of the hernia, is very uncommon, and therefore the following case cannot be devoid of interest.

A woman, æt. forty-five, had had a crural hernia on the right side for five years. It was originally produced by violent exertion. The tumor was easily reduced, and a month before her admission it disappeared entirely. From this period the patient experienced pain and inconvenience in the inguinal region, but there was no tumefaction. Fifteen days after, a swelling appeared of a red colour, accompanied by fever. A physician was consulted, and, suspecting the patient was ruptured, he sent her to the Hotel Dieu. The tumor was of the size and shape of a hen's egg: it adhered to the crural arch, and was with difficulty moved. Although it was not hard, it had a certain feeling of resistance, and fluctuation in it was evident; the skin was red, and the cellular tissue engorged. he tumor had not increased in size since its appearance: the bowels were regularly open; there was no hiccup, nausea, or vomiting; pulse hard and quick. The diagnosis was somewhat difficult: it was not easy to determine whether it was an abscess or an obstructed hernia, "*hernie avec engouement.*"

As no mischief could arise from making an incision into the parts, with as much care as if it had certainly been a case of hernia, and as there was a manifest fluctuation, M. SANSON determined upon this expedient. When he had cut downto the sac, a fluid was detected within it, and it was still believed to be a hernia: but the surgeon was quickly undeceived by the large quantity of serum which escaped from the wound, and by the shrinking of the tumor. The opening having been enlarged, and a finger introduced, no communication with the abdomen was found. It was a well-polished sac, without any opening, extending towards the obliterated crural aperture. M. Sanson and M. Dupuytren had seen many similar cases. Lint was introduced into the cyst, to cause adhesion of its sides, and the same dressing was continued until the wound was nearly healed, the patient remaining radically cured of her rupture.

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* Journal Complémentaire.

HOTEL DIEU DE PROVINS.

Case of Excision of the lower Ends of the Bones of the Forearm.

By M. HUBLIER, D.M.P. &c.*

A WOMAN, named Dujour, æt. thirty-three, of a strong and healthy constitution, had her right wrist crushed between the pole of a heavy carriage and a wall. The hand was thrown back upon the forearm; the ulna was luxated forwards; it protruded an inch and a half through a wound, in a vertical direction, of about the same extent; but in a transverse direction from the ulna to the radius in the front of the joint, the wound was about four inches long: in the latter part the skin only was divided. The lower end of the radius was fractured transversely; the inferior portion, about eight or nine lines in length, was divided into two portions by a longitudinal fracture.

On the first day the wound was poulticed, and on the second the dislocation was reduced; on the tenth the patient was admitted into the hospital. She was free from fever, and could move without difficulty the arm and fingers. Her sufferings were apparently not great, notwithstanding the swollen and tense state of the injured parts. A crepitus was easily detected, but it was difficult to judge of the position of the fractures. The limb was covered with poultice, and placed in a bath, morning and evening, for an hour, until the nineteenth. The inflammation and tension had now subsided, and the precise nature of the injury was consequently more evident.

For the last two days the limb had been œdematous, the wound and adjoining parts highly sensible, and there was a profuse discharge of pus, arising from the cellular membrane, and caries of the fractured bones: fingers deprived of motion; disturbed sleep; great agitation, fever, anorexia. From the continuance of such symptoms, it was apprehended that the patient would lose her limb, if not her life. A prompt decision was required as to the means to be pursued. Most authorities advise amputation in such cases; but as the soft parts still appeared healthy, it was determined to attempt to save the hand, by removing the lower ends of the bones. This novel operation at the wrist presented many difficulties: there was a large wound, with ragged edges; the parts contused; four portions of bone to extract, three of which were distant from the opening through which they were to be removed, and the tendons and radial artery to be avoided. M. GALLOT, the principal surgeon of the hospital, having approved of the proposal, it was thus carried into effect.

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* Archives Generales.

The ulna, being separated from the surrounding parts, was made to protrude at the anterior wound. A splint was placed beneath this bone, and it was sawn asunder about fifteen lines from its lower end. Behind this opening, an incision of the same extent was made, which, by joining it inferiorly, formed a triangular flap, the base being turned upwards. By this means the radius was made to protrude with more facility, and it was sawn asunder in the same manner and at the same heighth as the ulna. With a strong pair of dentated forceps, held in the left hand, the internal and lower protruded portion of the bone was grasped, and drawn out to stretch, and divide the ligaments more easily, which was done with a bistoury, the point and edge being turned towards the bone, to avoid wounding the tendons or radial artery, which lay under the external fractured portion. This was extracted in the same manner: a ligature was placed upon the ulnar artery. The wound was united by adhesive plaster, over which a compress of lint and a bandage were applied. The operation lasted one hour, but during it the patient was allowed occasional rest. The dressings were renewed on the second and following days, and, whenever they became dry, they were moistened with emollient fomentation, in which was a small quantity of camphorated spirits. Inflammation was thus diminished.

The patient left the hospital on the 6th December, perfectly cured. She had the power of moving all the fingers except the little one, which remained half bent. The wrist was not deformed, and it retained its relative position with the forearm. This woman has since resumed her ordinary occupation.

ST. THOMAS'S HOSPITAL.

Cases of Glanders in the Human Subject. By JOHN ELLIOTSON, M.D. CANTAB. F.R.S.*

THOMAS MASKALL, aged seventeen, apprentice to his uncle, a tailor at Woolwich, was admitted into George's Ward, St. Thomas's Hospital, under the care of Dr. ROOTS, on Thursday, March 19, 1829. The upper half of the face, including the eyelids and the nose, with the portion of the cheek on each side, especially on the right, was greatly tumefied, so that the eyes were closed. The eyelids and swollen portions of the cheeks were red and hot, dry and shining, but the nose was dark coloured, and on its right half black, cold, and senseless. From around the gangrened portion of the nose, and some other points, a little pus was oozing, as well as a thin dark-coloured fluid; and from the nostrils a thick discharge, of a deep yellow colour, here and there a little bloody, was taking place, exceedingly copious from the right nostril. Several hard phlyzacious pustules existed on and immediately around the nose, still principally on the right side, and in various parts of the trunk and extremities. Tumefactions were observed in both forearms and in the back of the right hand. Some of these were hard, others softening into suppuration. The temperature was high; the pulse 136, and sharp; the tongue white, and rather dry. The respiratory murmur was indistinct at the right lower part of the chest, and the respiration quick and difficult. The gums were slightly turgid.

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* Med.-Chir. Trans. vol. xvi. part i.

It was stated that twelve days previously (Saturday, March 7,) he had been attacked by pain in the right hypochondrium, extending up the chest, dyspnœa, and rigors; that he took ten grains of Pilula Hydrargyri, and the next day felt quite well. The pain and dyspnœa, however, returned on the day following, but subsided by the end of the week under the use of leeches and purgatives. On the Sunday, five days before his admission, a pimple was said to have appeared upon the right side of his nose; while this increased and suppurated, the surrounding parts swelled and grew red, and the state of things became such as I have already described.

About five weeks before his admission, a gonorrhœa had begun, for which he believed that he took mercury, by the direction of some irregular practitioner; and the condition of his gums rendered this extremely probable.

Fourteen ounces of blood were taken from the arm, and became both buffed and cupped. Some of the tumefactions were cut into, and large quantities of pus discharged. Lint soaked in a solution of the chloride of soda, and covered with a poultice of stale beer-grounds, was applied over the nose fresh every hour, and a common poultice to the abscesses which had been opened. An ounce of castor oil was given, and the diet restricted to slops, milk, and arrowroot.

Late in the evening, two greenish and very offensive stools were passed involuntarily, and a little delirium was observed. Tumefactions had begun upon both legs, one upon the left hand, and one upon the right elbow. The next morning more tumefactions were seen upon the extremities, red as all the others had been; but the others had now acquired a purple tint, and the wounds looked dark. The forehead was swollen and red, and more pustules had formed upon the face. There was constant agitation, frequent delirium, profuse diarrhœa, and there had been no sleep. Mistura Cretæ composita was prescribed, sixteen leeches applied to the temples, and strong beef tea added to the diet.

In the evening the diarrhœa was checked; but the upper lip had grown very dark, sordes encrusted the teeth, the surface, still hot, was covered by a profuse sweat, and many new hard pustules were seen upon the trunk and extremities. The pulse had become soft, and was small and rapid. Twenty-five minims of Tinctura Opii were given in the first dose of the Mistura Creta composita, and one grain of the Sulphas Quininæ every four hours prescribed. The Oleum Terebinthinæ was substituted for the solution of the chloride of soda.

He was calm after taking the opium, but, about four o'clock in the morning, was observed to breathe with more difficulty, to be unable to swallow, and to be constantly delirious; and from that time he sank gradually, and expired at six.

I was not present at the inspection, but understand that there were proofs of a violent pleuro-peripneumonia in the lower part of the right side, and that two ounces of healthy pus were found between the adherent lung and the diaphragm. A dark red patch existed in the stomach, and several at irregular distances throughout the intestines. The mucous membrane of the stomach was very lacerable at that spot. The other viscera, and all the contents of the head, as well as the veins of the extremities, were reported healthy; but the mucous membrane of the nostrils was not examined. The abscess which had been opened in the back of the right hand communicated with the joint of the metacarpal bone of the middle finger, but those on the arm did not communicate with the elbow.

The appearances suggested to me the idea that some deleterious matter had been introduced into the system. I inquired if he had probably been in the way of catching such a complaint, if he knew of any one similarly affected, and if he had taken any other food than what was habitual to him and good, or than what was used by the rest of the family. But all these questions were answered in the negative, and, therefore, when asked for my opinion by the pupils, I declared myself perfectly at a loss.

Dr. Elliotson relates another case of a similar kind, which also terminated fatally. In the Medical Gazette for July 4th, 1829, a "Fatal Case of *acute* Glanders in the Human Subject" was published, and the perusal of the account of this case, the symptoms of which corresponded with those that had occurred at St. Thomas's, led Dr. Elliotson to suspect the true nature of the disease. Upon a careful inquiry, he found that his second patient had worked in a stable for several weeks, and that, in an adjoining stable, a glandered horse had been kept.

"The boards which separated the stable from the particular part where the poor fellow had always worked, and against which the horse's head had been, were so defective, that the discharge from the animal's nostrils had come through, and occasioned so great a stench, that he frequently said he should be unable to work if the horse was not taken away. I learnt further, that, while it was being led to the knackers, about a month before the commencement of his rheumatism, (about two months before the affection of the face, and his death,) it fell down exhausted at the door of the forge; that he went out, and patted it about the head as it lay, and took hold of the head while they all endeavoured to make the animal rise; that he had a habit of continually wiping his nose with the back of his hand, and for some time had been troubled with such pimples on his forehead and about the nose, as are common to persons of his age. The horse had not the farcy as well as the glanders, and became diseased from being placed in a stable of the mews in which were two or three glandered horses."

Maskall, the subject of the case we have taken from Dr. E.'s very interesting paper, had been in the habit of helping to harness a pony which had the glanders and farcy.

"Although the friends did not remember whether the lad had any pimples on his face about the time of his seizure, the father distinctly recollected that he had been much troubled, some little time back, upon both his forehead and chin, with such as are common during the first years of puberty. Nothing is more possible than that he still had some of these chronic pustules, and that glandered matter came in contact with one or more that were open."

Mr. Brown, surgeon of the 2d Dragoon Guards, informs us* that, within the last few years, several cases have been recorded, which unquestionably show the facility with which glanders may be communicated to the human subject, by the contact of morbid matter, from either the horse, ass, or mule, with the surface of incised or lacerated wounds; evinced not only by the subsequently inflamed state of the lymphatics, distinctly traced from the part inoculated, terminating rapidly in ulceration similar to farcy; but also by the matter taken therefrom possessing a most active power of reproducing this disease in its acute and genuine form.

Dr. Elliotson presumes that an abrasion is necessary to the production of the disease, as most veterinary surgeons are satisfied by experience that the matter of glanders never excites it in the horse, even if applied to the pituitary membrane of the nostrils, while the surface is entire.

ST. BARTHOLOMEW'S HOSPITAL.

Case of Phlegmasia Dolens, caused by Inflammation of the Veins of the lower Extremity, excited by Malignant Ulceration of the Cervix Uteri. By William Lawrence, Esq. F.R.S., Surgeon to St. Bartholomew's Hospital.†

As the following case completely confirms the interesting and important observations respecting the nature and causes of Phlegmasia Dolens, lately communicated to the society by Dr. Robert Lee, I sent the particulars to him. They were too late for insertion in his paper, which had been already printed: at his request, therefore, I present them to the society in a separate form.

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* Med. Gazette, July 4, 1829.

† Medico-Chirurgical Trans. vol. xvi.

Anne Dawson, forty years of age, a married woman, who had borne several children, was received into St. Bartholomew's Hospital, under my care, on the 12th of November, 1829. Her complexion was sallow, and the expression of the countenance altogether very unhealthy. She had pain in the loins, frequently shooting towards the hypogastric region, which was tender on pressure; costive bowels, restlessness, and sanious discharge from the vagina. She had not menstruated for several months. For the last six months she had laboured under incontinence of urine; she had perfect use of her legs, and full power over the sphincter ani. There was no tenderness in the region of the spine. Instead of the os tincæ and cervix uteri, a large irregular ulcerated excavation was found at the posterior end of the vagina. Anodynes, and the occasional use of castor oil, were directed, and afforded some relief.

About the 20th of November, increased uneasiness was experienced in the lower part of the abdomen, with feverish symptoms, not of a severe description: the pulse was sharp and frequent, the tongue white, the skin warm, and the countenance slightly flushed. The right lower extremity swelled in its whole extent, with some increase of heat, and pain on motion, which was performed with difficulty. The colour of the limb was not altered; the swollen part of the thigh was tolerably firm; the lower part of the leg, and the foot, pitted on pressure. There was pain in the course of the femoral and iliac vessels; and the internal saphena vein could be traced at the upper part of the thigh by a hardened knotty feel. I considered the disease to he essentially the same as the phlegmasia dolens occurring in women recently delivered: there could be no doubt that the large veins of the thigh were inflamed; and the observation I had heard from Dr. Lee led me to conclude that inflammation had been excited in the veins of the uterus by the disease in its cervix, and had extended from them to the iliac and femoral venous trunks. I ordered twelve leeches to the front of the thigh, over the course of the femoral vein; that the bleeding from the orifices should be encouraged by fomentation, and the parts afterwards covered with a bread poultice. A saline draught, with a drachm of the sulphate of magnesia, was also directed every six hours. On the next day, the swelling of the thigh was less; the anasarcous state of the leg and foot remained. There was less pain, and greater freedom of motion; the feverish symptoms were lessened.

The pain returned on the 25th, when the leeches were repeated with benefit. She gradually improved from this time; the tenderness at the lower part of the abdomen being diminished, and the incontinence of urine less troublesome. The latter symptoms, however, with a discharge from the vagina, at first supposed to be menstrual, returned about the 16th of December, and were relieved by alum injections, with the internal use of dilute sulphuric acid and tincture of opium. On the 18th, violent hemorrhage from the uterus came on early in the morning, and was speedily fatal. A large quantity of blood had flowed before she became aware of the circumstance, and called for assistance.

Examination. When the body was examined, on the second day after death, the fundus of the uterus was found moderately enlarged and firm: the cervix had been destroyed by that kind of phagedenic ulceration, which is usually called cancer of the uterus. The rectum and sigmoid flexure of the colon adhered firmly to the uterus; and, but for this adhesion, the ulceration would have penetrated the cavity of the abdomen. The cellular and adipose substance round the lower part of the uterus, and neighbouring portion of the vagina, were thickened and indurated, particularly on the right side. The hypogastric vein, involved in this diseased mass, was closed, in consequence of previous inflammation of its coats; and the same change had occurred in the internal iliac, the common iliac, the external iliac, the femoral and profunda veins, as well as in the internal saphena; all of which were completely impervious. The affection terminated above at the junction of the common iliac vein with that of the opposite side; the latter vessel and the inferior cava being quite natural. The saphena was closed for a length of about four or five inches, beyond which it was natural. The profunda was cut through near the femoral vein, and the latter was divided as it passes the tendon of the triceps. The disease extended, in both these vessels, beyond the situations where they had been divided; but its inferior limits were not ascertained. The right spermatic vein was closed in its lower half. The coats of the affected vessels, and the surrounding cellular substance, were a little thickened, and their cavities were plugged by a closely adherent, and tolerably firm substance, of a light brown colour. At some parts the vessels, and their contents, were of a dark livid hue.

The examination of this case fully confirmed the opinions which had been entertained during the patient's life, namely, that the swelling of the lower extremity arose from inflammation of the large venous trunks; and that the latter affection was owing to extension of disease from the hypogastric veins, in which it had been excited by ulceration of the uterus.

Although the inflammation of the veins had been extensive, it yielded readily to mild antiphlogistic means; and the inflamed vessels had already advanced considerably towards that natural cure which is accompanied by obliteration of the cavity. This progress is interesting in another point of view: it shews that the disease of the vessels, although excited by a specific malignant affection, was simple or common inflammation.

CRITICAL ANALYSES.

Quæ laudanda forent, et quæ culpanda, vicissim
Illa, prius, cretâ; mox hæc, carbone, *notamus*.—Persius.

Observations on Asthma, Consumption, and other Disorders of the Lungs; with Cases showing the Benefit to be derived from a Nutrient and Invigorating System of Diet and Regimen, in Pulmonary Diseases and Disordered Breathing. By A. Rennie, Surgeon, &c. *Second Edition.*—8vo. pp. 95. Burgess and Hill, London, 1830.

We believe there is much truth in the preliminary observations with which Mr. Rennie introduces this little volume to our notice. There is, in the present day, so strong a conviction of the necessarily fatal termination of all cases of pulmonary consumption, that the physician very generally continues his attendance and remedies more for the mental gratification of the patient and his friends, than from any confidence which he has in their efficacy. This is not, indeed, to be wondered at, as the experience of ages has shown how few escape of those who are attacked with this most formidable disease. But since it is undeniable that cases of consumption, or cases resembling consumption so completely as not to be distinguished, to all appearance hopeless, have been restored by the united forces of nature and medical assistance, this unlimited despair is not to be justified. No harm can possibly arise from the physician looking upon every case which is presented to him as one which *may* form an exception to the general rule. He must neither be so sanguine as to deceive himself, or as to compromise his own reputation by a favorable prognosis where the chances are so fearfully against his patient; but absolute despair is to be deprecated.

Amongst other introductory propositions put forth by Mr. Rennie, are the following: That the usual method of treating consumptive invalids by bleeding and lowering diet, and other means of an antiphlogistic nature, is, in many cases, incapable of effecting a recovery; that the invigorating and nourishing plan of treatment, applied with discrimination, and accompanied by medicinal measures adapted to existing peculiarities, is much more extensively applicable in cases of decline, than is at present supposed; that there are cases which may be restored by the above plan, which are considered incurable by any other methods, and whose fatal progress seems rather accelerated than retarded by lowering and depleting measures. These are doctrines which have very frequently been maintained; and of their validity we have no doubt.* They are certainly, however, either not known, or are despised, by the majority of practitioners of the present day, who regard inflammation as the principal mischief with which, in phthisis, they have to contend, and who therefore bleed and purge, and starve their patients; and, when these means fail, look silently on the progress of the disease, with a firm conviction that art can do no more. But consumption, though an inflammatory disease, generally occurs in a weak and scrofulous habit of body, and it is quite as important that we should bear in mind the necessity of husbanding the powers of the constitution, and even of supporting them by generous diet, as that we should oppose the symptoms and progress of well-marked inflammatory action, which not unfrequently exist at its commencement, by *moderate* antiphlogistic measures.

Mr. Rennie gives various cases in detail, with the very proper view of illustrating the injurious tendency of premature despair, in diseases apparently consumptive, and as proofs of the possibility of recovery under circumstances to all appearance the most decidedly unfavorable; and also as exemplifications of certain practical principles in therapeutics, perhaps not duly appreciated in such disorders.

"W., a young man, aged twenty-four, tall, broad betwixt the shoulders, but very thin in the chest, and flat-breasted, of a consumptive family, two sisters and a brother having died of that disorder, and one of his parents; nails crooked.

"For some months has felt unusually languid, with aching pains, fever, thirst, and wakefulness at night; nausea and headache in the mornings, and costive bowels. Feels particularly tight and oppressed at chest, breathing short; unusually liable to take cold, with an habitual tight dry cough. These symptoms gradually increasing with a progressive wasting away of flesh, he was, on a certain occasion, from exposure to cold, seized with shivering, fever followed, a violent fixed pain in the left chest, and difficulty of breathing. He was obliged to send for his apothecary, by whom he was bled, blistered, and purged, and under whose care he continued for a considerable period, restricted to a very low diet and occasional saline purgatives. Although by these measures the severer symptoms were abated, the cough gradually increased, with frequent expectoration of matter occasionally streaked with blood, emaciation, evening fever, and night perspirations. He was regarded as decidedly consumptive.

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* In our Number for May last, we gave an interesting article upon this subject, from the North American Med. and Surg. Journal, by Dr. PARRISH. Dr. P. very truly observes, that the condition of the lungs in tuberculous phthisis is not at all analogous to ordinary inflammation, nor is it to be treated upon similar principles. The diseased action is peculiar, and requires peculiar modes of cure. He particularly recommends nourishing food, air, and exercise; and, in reference to the ordinary modes of treatment, he says, "Take a robust man, confine him in a close room, bleed him repeatedly, diet him strictly, keep up an action in his bowels by purgative medicine, and allow not a breath of air to blow upon him, and, if I am not greatly mistaken, his pulse will become frequent and irritated, with the occurrence of night sweats, and perhaps sizy blood: in fact, that very condition of system will be produced, for which, in cases of phthisis, these measures are recommended as remedies." Dr. Parrish details several good cases in confirmation of the accuracy of his views, and of the efficacy of the general plan of treatment he recommends.—EDITOR.

"When I first saw him, he complained particularly of tightness of breathing; a sense of pain and pressure at the breast, frequent deep-seated wheezing and tickling in the chest, provoking constant coughing, which is much aggravated on any attempt at full inspiration. He is very much reduced in flesh, the countenance having a peculiar shrunk contracted aspect, with sinking of the temples and softer parts, and great prominence of the cheek and other bones. The matter expectorated is occasionally tinged with blood, apparently purulent, partly pendulous in water, partly sinking to the bottom, where it lies in solid granular and detached flakes. Pulse tense, contracted, 100 to 110, irregular on inspiration; bowels confined; tongue furred, red at the edges, and feels tender." (P. 7.)

Taking this case as it is reported, we have no hesitation in asserting that many, if not most, practitioners would have looked upon it as hopeless; and yet the patient escaped not only with life, but regained health and vigor. Mild purgatives were first given, with nauseating doses of Ant. Tart., and an occasional pectoral mixture for the cough. A warm plaster was ordered to be constantly worn on the chest. After this, occasional doses of Pil. Hydrarg. and Extr. Coloc. c. were prescribed at bedtime, and powder of rhubarb with an aromatic in the morning. The patient was ordered to be much in the open air. Diet: animal soups, jellies, milk, and farinaceous preparations. After a week's continuance of this plan, the pectoral symptoms were much relieved, functions of the bowels improved, appetite, digestion, and sleep better. Night perspirations continued, and but little improvement in flesh. Treatment continued. Diet of solid animal food once or twice daily, with a digestive pill to obviate gastric inactivity and fever. Several weeks elapsed, and the patient still complained of deficient appetite and general debility: in other respects somewhat improved. A mixture was now prescribed of Decoct. Lichen. Island., Sarsap., and Acid. Sulph. dil., with some apparent advantage. From accidental cold, the patient suffered a relapse. "Pulse tense, above 100, and considerable cerebral excitement. The natural suggestion was venesection. This, however, under the existing constitutional debility, was dispensed with." By returning to the medicines first prescribed by Mr. R., the urgent symptoms subsided in a few days, and immediately afterwards the former invigorating plan of treatment was re-adopted. In a short time the general health of the patient was amended, and the pectoral symptoms relieved. He was now removed to the country, with directions to be in the open air, on horseback, the greater part of the day, in fine weather; to adopt a nourishing diet of milk, soups, and solid animal food twice daily. Aperients and pectoral mixture as required. This regimen was strictly pursued, and, within four months of his leaving town, he returned as vigorous and healthy as at any period in his life, and he had gained much in muscular substance. Five years have elapsed, and this patient has experienced no relapse. His brother died consumptive in the country.

In this case, says Mr. R., the symptoms were decidedly characteristic of phthisis, and the disorder was probably constitutional, from the fate of several members of the family.

" Query. What would have been the issue in his case if, in the existing constitutional debility and progressive wasting, he had not adopted the strengthening and nourishing plan of treatment? Upon what principles were the beneficial results attained in the restoration of the invalid?

" 1. Excitement and habitual regularity of the functions of the liver and bowels, previously much obstructed.

"2. Allaying the general excitement of the circulation, and promoting determination to the skin.

"3. Allaying pulmonary irritation, and promoting free expectoration.

" 4. Habitually maintaining, in a mild manner, a due activity in the biliary and visceral secretions.

" 5. Supplying adequate nutriment, proportioned to the demands of a system much reduced beneath the standard of health and vigour.

" 6. Air and exercise, promoting both the pulmonic and digestive functions, and by consequence the health and vigour of the frame.

" In such cases the two great concomitant indications seem to me to be, to counteract general excitement and local irritation, and to restore and maintain constitutional vigor. Either of these intentions put in execution without due regard to the other must necessarily be prejudicial.

" And yet how extremely common in pulmonary diseases is the ractice of pursuing repeated bleedings and continued abstinence in an indiscriminate manner, with the view of subduing a disorder essentially dependent on, or at least associated with, constitutional debility." (P. 11.)

The second and third cases are also illustrative of the unfavorable effects upon some diseases of the chest, which arise from the debility induced by injudicious depletion and abstinence; and they also show the advantages to be obtained from a proper administration of animal and nourishing diet, when adopted with a due regard to existing circumstances.

After the relation of these cases, Mr. Rennie offers some general remarks upon the proper limits which ought to be assigned to bleeding and low diet in pulmonary diseases. By many his doctrines will be considered as any thing but orthodox: perhaps, by some they may be deemed rash and dangerous. The disciple of Broussais will start with apprehension at the promulgation of such therapeutic principles; but still, to a certain extent, we believe them to be well-founded and judicious. The substance of them has, indeed, been frequently insisted upon by able authorities.

"Depletion, however necessary it may be to control active inflammation of the lungs, when either pushed too far or pursued after the severer symptoms have yielded, seems greatly to increase the disease which so often ensues upon inflammation, whether consisting of ulceration from tubercles or a purulent secretion from the bronchial membrane; and this it does by the constitutional debility it occasions; a state very unfavorable to restoration of the healthy state of the affected parts of the lungs."* (P. 18.)

"It is, doubtless, essentially necessary to have recourse to the lancet in order to reduce acute inflammatory action in which the circulation, generally and locally, has been excited to activity greatly beyond its power; but, in diminishing the existing impetus of the fluids by venesection, it is to be recollected, that a diminution also takes place of vital power, since that is removed which is essential to its support. And I hold it therefore to be an incontrovertible axiom, that after every depletion which urgent circumstances may render necessary, the constitution presents an immediate demand for equivalent nourishment; and in the absence of such supplies of food as are requisite to renovate the powers, action beyond power continues as before, and the existing fever is only complicated with constitutional debility. This, indeed, is the necessary result in all cases where a system of unnatural abstinence is made to succeed systematic or excessive bleedings. The very course which is adopted to subdue morbid action is that which, by reducing the powers of the system, produces and maintains the febrile excitement arising from weakness and irritability. The practice, therefore, of bleeding and starving, as a general rule, in pulmonary disorders is essentially erroneous; and whensoever it is practised beyond the period of acute inflammatory action, is highly prejudicial." (P. 20.)

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* Epidemic peripneumonies have existed, in which bloodletting was constantly hurtful, and bark beneficial in every stage of the disease. This fact was witnessed, says Laennec, particularly in Germany, towards the close of the last century; and there is no doubt that Brown's theory was indebted to this medical constitution for a portion of the fame it obtained in that country.—EDITOR.

Here we think Mr. Rennie pushes his argument too far. We cannot admit that, "after *every* depletion" which urgent circumstances may render necessary, the constitution presents an "*immediate* demand for equivalent nourishment." If this doctrine had been advanced in less general and positive terms; if it had been merely said, that in some constitutions, and under particular circumstances, indicative of sinking or exhaustion after bleeding, that we are called upon immediately to support the vital powers of the patient by appropriate nourishment, we should have assented to it without hesitation; but no practical observer requires to be informed that, in many cases of acute pneumonia, (those, for instance, which attack the young, strong, and previously healthy subject,) the effects of free bleeding must be seconded by rigid abstinence, continued for some time, or local inflammation will again occur, and again the use of the lancet will be demanded. We are fully sensible, and would avoid the danger, of that constitutional irritability which too often results from inanition, the consequence of extreme and injudiciously continued abstinence in the management of acute diseases: but, on the other hand, let us not forget the remark of BROUSSAIS, which Dr. FORBES* so justly applauds as of great practical value, and as equally applicable to abstinence as bloodletting. "Ce ne sont point les pertes de sang qui prolongent les convalescences; ce sont les points d'irritation qui restent dans les visceres; et souvent les stimulants et les pretendus toniques que l'on s'empresse de prodiguer, afin de reparer les forces que l'on vient d'enlever par la saignée, contribuent à entretenir ces foyers chroniques de phlegmasie, et à rendre le retablissement plus difficile."†

In a subsequent page Mr. Rennie indeed observes, "that, in certain cases of pulmonary disorders, injurious consequences are to be apprehended from a free and indiscriminate use of animal diet, I am ready to concede; and also that attention is necessary always to adapt the quantity and quality to the power of digestion, and other peculiarities, otherwise fever and disorder will result, instead of health and vigour;" and again, at page 24, "it must be acknowledged that animal diet cannot with propriety be administered in all cases of pulmonary disorders indiscriminately." These concessions modify, to a certain extent, the "incontrovertible axiom" before laid down; but still it is nowhere stated, as we think it ought to have been, that, in many cases of pulmonary disease, animal diet of any kind would be highly improper, and very dangerous.

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* Translation of Laennec, third edition. Note, p. 272.

† Examen des Doctrines Med. t. ii. p. 503.

We know there are many able practitioners who deny the possibility of curing tubercular phthisis by any medicines, or any mode of management. As far as we can judge, Mr. Rennie's fourth case was one of tuberculated lungs, and yet the patient recovered under the tonic and strengthening plan of diet. Dr. Parrish, to whose paper we have already referred, also relates very strong proofs of tubercular phthisis having been cured by free exposure to air, active exercise, and nourishing diet. Laennec thinks that tubercular phthisis may be cured by nature, but not by medicine:* he says, "But while I admit the incurability of consumption in the early stages, I am convinced, from a great number of facts, that, in some cases, the disease is curable in the latter stages, that is, *after* the softening of the tubercles, and the formation of an ulcerous excavation." This distinguished pathologist also observes, that a cure of tubercles in the lungs may take place in two different ways, after the formation of an ulcerous excavation: first, by the cavity becoming invested by a new membrane, analogous to some of the textures of the healthy body; and secondly, by the obliteration of the excavation, by means of a cicatrix, more or less complete, consisting of cellular, fibrous, or cartilaginous substance.

Mr. Rennie relates several other cases in confirmation of the efficacy of the general plan he has found so beneficial in pulmonary diseases. They are detailed chiefly to illustrate some very sensible remarks, which he offers on the subject of plethora, and on the erroneous pathological notions which too frequently lead practitioners to bleed and starve their patients, in cases which would not only admit of, but which would be decidedly benefited by, a contrary plan.

"J. S., aged fifteen, was seized with violent fever, pain in the chest and back; hurried, difficult, and oppressed breathing; pulse hard, quick, contracted; with great anxiety, and depression of strength.

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* Forbes' Translation, third edition, p. 305.

He was immediately bled largely, under direction of an experienced physician and an apothecary the symptoms continuing, cupping glasses were applied as often as twenty-three times, along with blistering and other antiphlogistic measures. Diet, barley-water and tea. After about two weeks' continuance of this plan the invalid was greatly reduced in flesh and strength, but the fever continued, with difficult breathing; severe pain in the chest on inspiration, and a most distressing cough, with great expectoration of purulent matter, to the extent of half a pint at a time. He had hectic fever, profuse night perspirations, and was reduced to skin and bone, being unable to stand from weakness; pulse quick and weak. Under these symptoms, he was pronounced in hopeless consumption, with abscess on the lungs; and from the severity of the cough, the difficulty of breathing, and the quantity of purulent matter expectorated, it was considered he must speedily sink, whatever means were adopted. In these circumstances it was thought desirable to get him into one of the hospitals. In the lowest state of weakness, he was taken there, and put under the care of the hospital physician; the opinion was confirmed of its being decided consumption from a large abscess on the lungs, and a fatal termination was considered almost immediate. About half a pint of purulent matter was discharged daily from the lungs, and sometimes it came up in mouthfuls, as if he would suffocate. The hospital nurse had already marked the case as the next probable death in her ward. This view it appears the physician had also formed; for at the expiration of nine days the patient was advised to return home, as the best place under the prospects before him. When he returned home, he was so ill that it was feared his death was close at hand. On examining the case, I never saw one which I should consider more truly hopeless; I however prescribed the invigorating plan, as affording the only glimmering of hope. He was emaciated to a skeleton; was burned up with fever, or bathed in perspiration; breathing very short; cough constant; spitting abundant; no sleep or appetite, &c. He was so weak that he could not stand, and stooped much, with pallid sunken countenance, and constant tendency to faint; bowels costive.—℞. Pilul. Hydr. gr. iv., Pulv. Jac. V. gr. ii. M. ft. pilulæ nocte alterna sumenda. ℞. Infus. Sennæ, c. ℥iv., Aq. Menth. Piper ʒii., Magnes. Sulph. ℥i.. Vin. Antim. ʒiv., Tk. Sennæ c. ℥i. M. ft. mistura sumat. cochl. amplum horis tertiis donec alvus plene responderit. —℞. Pulv. Doveri gr. iv., P. Jac. Veri gr. i., Confect. Arom. q. s. Fiat pilula; mitte. iv. Sumat i. nocte alterna. Diet, beaf-tea twice a day.

"This course was continued a fortnight, adding a sedative mixture for the cough, and tonics; also solid animal food as soon as the stomach could receive it: at which time, to my surprise and satisfaction, the invalid had gained so much strength as to be able to sit up the greater part of the day; in a short time longer, he could walk out of doors; the cough and spitting gradually diminished; he gained in flesh rapidly; the night perspirations left him the first week; and in a few weeks he was so well as to be admitted into the

Blind Asylum. where he now is; and where, previous to admission, it is requisite for the candidate to undergo a medical examination as to soundness of health by the medical officer." (P. 45.)

Mr. Rennie has often found the combination of Pil. Hydr. and Pulv. Jacob. veri, very beneficial in cases of febrile excitement, attended with pectoral symptoms. "Perhaps in no circumstances are the beneficial effects of this preparation more perceptible, than in complications of hepatic obstruction with chest complaints; a case more frequent than is supposed." Two cases are related of abscesses in the lungs, in which this combination of remedies, along with nourishing diet, was of decided advantage. Both the patients recovered.

The next subject to which Mr. R. refers is "Spitting of Blood," attending pulmonary symptoms; "a case seemingly incompatible with the use of stimulants," but in which "the nourishing plan of diet, if accompanied with proper remedies, will often prove auxiliary to speedy recovery." This statement, although it is put forth with a certain air of originality, will be at once assented to by every practitioner of ordinary experience: it is, indeed, the doctrine of every practical writer. Hemorrhage from the bronchia or lungs, as from every other part of the body, may be active or passive, entonic or atonic. In the active or entonic species, abstinence and depletion are undoubtedly required. In the passive or atonic species, nourishing diet, tonics, and stimuli, will constitute the appropriate means of remedying the disease. And further, hemorrhage may at the commencement be purely entonic, but, from its profuseness or long continuance, may at last become a disease of debility, which will be aggravated by the lowering plan of treatment that was at first necessary, and then demand the kind of management which Mr. Rennie recommends, and of the successful application of which he details some cases which are not devoid of interest; inasmuch as they illustrate the danger of continuing a system of rigid abstinence and depletion, when the symptoms and general condition of the patient no longer justify such practice.

Two cases of laryngeal phthisis are related, in which the invigorating treatment was decidedly favorable. In cases of "serous effusion into the cavities," Mr. R. believes "the invigorating method of treatment to be generally indicated. Such disorders always are connected with great general weakness of the habit, and invigorating means seem essential to restore this." We deny the accuracy of this pathological doctrine: and, in the first place, we may observe, that the two sentences we have just quoted are not quite in keeping. If such disorders were "*always* connected with great general weakness, then the invigorating method of treatment would not only be "generally," but would "always" be indicated. But the fact is not so. To assert that serous effusions are "*always*" connected with great general weakness, is to advocate a doctrine that we thought had been exploded from the modern school of medicine.* The remarks we have offered upon the subject of hemorrhage, are here also applicable. Serous effusions into the cavities are not unfrequently immediately dependent on inflammatory action. In other, and perhaps the majority of cases, they depend upon general or local debility. In the former, Mr. Rennie's invigorating plan of treatment would be decidedly improper, while in the latter it would be highly judicious. We are not called upon to enter into an elaborate discussion of this subject, and we therefore quit it by referring, in support of our opinions, to the best writers upon the practice of physic of the present day.

The last subject Mr. Rennie discusses is "Spasmodic Asthma." He believes "the use of animal food will always prove beneficial, if due regard be paid to the correction of any faulty state of the digestive organs previously; but unless this indication first be fulfilled, oppression, fever, and an increase of the dyspnœa is a natural effect of its adoption." Some cases are detailed, both of serous effusion into the cavities and of spasmodic asthma, which undoubtedly show that the invigorating plan of treatment is *sometimes*, but not "always," beneficial in these diseases.

The experienced practitioner will find much practical information in many parts of Mr. Rennie's book. The student, also, will peruse it with advantage; but he must be cautious in adopting all the practical doctrines that are advocated in it. He must compare them carefully, and weigh them deliberately, with other works in which the same subjects are discussed; for upon some points Mr. Rennie certainly shows how apt we are to push favorite opinions beyond their proper and justifiable limits.

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* "Dropsy from relaxation was a favorite doctrine with the early schools of medicine. They admitted, indeed, of no other species, and were at any rate unaware that the doctrine of atony and debility applies only to a small proportion of the cases of genuine idiopathic dropsy which are met with in common practice."—GREGORY's *Pract. of Physic*, third edition, p. 637. REV.

A Short Tract on the Formation of Tumors, and the Peculiarities that are met with in the Structure of those that have become Cancerous; with their Mode of Treatment. By Sir EVERARD HOME, Bart. V.P.R.S. F.S.A. F.L.S., Sergeant Surgeon to the King; Surgeon to the Royal Hospital, Chelsea; Consulting Surgeon to St. George's Hospital; Honorary Professor to the Royal College of Surgeons; Trustee to the Hunterian Collection; Proprietor of the Royal Institution; Corresponding Member of the Royal Institution of France; Member of the Royal Society of Gottingen; Member of the Physico-Medical Society of Erlang; Honorary Member of the Medical Society, Philadelphia; Honorary Member of the Royal Medical Society of Edinburgh; Corresponding Member of the Medical Society, Dublin; Honorary Member of the Medico-Chirurgical Society of Inverness.—8vo. pp. 98; Plates. Longman, London, 1830.

IN the year 1800, Sir EVERARD HOME published, in the Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge, an account of tumors found incased in the thecæ of nerves; and in 1805, a tract on Cancer, containing materials with a view to illustrate the history of that disease. In the present volume these cases are reprinted; in addition to which are added the facts the author has subsequently acquired respecting tumors in general, and cancerous tumors in particular.

There is a particular species of tumor, met with in the neck, and probably in other situations, which is contained in a cyst, and only loosely connected with it by small blood-vessels from its surface and cellular membrane : it is of a yellowish white colour, and somewhat resembles a kidney. It is of a uniform texture, and, when allowed to increase to a considerable size, some portions become more compact than others. This tumor is very common, "and in its removal it is only necessary to lay open the cyst, and disengage the tumor with the finger." "But there is a tumor, apparently similar, incased in a nerve, which requires a different mode of extirpation." Of this species of tumor the following case affords an example.

"A lady, twenty years of age, had a tumor on the outer side of the biceps muscle of the right arm, the size and shape of a pullet's egg: it was moveable in the surrounding parts; it had been several years in acquiring its present size, and was very painful when pressed upon. Its rapid increase induced her to have it removed by the knife. When the parts were fully exposed, the surface sured his life, and declared himself labouring under no disease. He afterwards died from a cancer formed in that tumor. Mr. Cline was consulted, and said that the tumor in the pectoral muscle was a cancer, and had been so from its first formation. In this opinion he was supported by another surgeon; and therefore the office refused paying the insurance, as the gentleman died in consequence of the fungous excrescence which this tumor afterwards produced. The case came before Sir William Grant, then Master of the Rolls, who was staggered by Mr. Cline's affidavit, but not convinced, and called upon me to know my opinion. I stated, that if Mr. Cline was correct, all such accidents would be immediately followed by cancer, which I knew was not the case, and gave him several instances in confirmation of my assertion, in particular, that of Mr. Hunter; and the gentleman's executors gained their cause: since Mr. Cline could bring no proof when the cancerous disposition first took place; and as the gentleman, at the time he took the oath, could have no knowledge that the swelling brought on by the accident could be the forerunner of any disease." (P. 19.)

As a proof that climate and constitution have much influence over the formation of cancerous tumors, Sir E. mentions that, in the island of Otaheite, and those in its neighbourhood, fighting among themselves is the common mode of deciding the quarrels of the women. The blows are principally aimed at the breast, which has no defence, and cancer has never been met with in these countries.

We do not deem it necessary to dwell particularly on the observations offered by the author "on the progress of scirrhus in the breasts of females." The practical facts and statements included under this head are now very generally known and admitted by surgeons.

After the mammæ, the tongue is considered most liable to cancerous disease. Any local affection of the tongue is liable to become cancerous, or, in other words, to propagate itself by affecting the glandular structure of that organ, and afterwards have the disease carried on by absorption. "As all such cases have a fatal termination, if the parts are not in an early stage extirpated, there is good ground for treating them all as cancerous; and the cases of this kind that have come under my own observation are the strongest proofs of the origin of the tumor not being of a poisonous nature; since in all those where the operation was resorted to before the disease was largely extended, the cure has been permanent, and in the others has proved fatal." The following cases are interesting.

"John Weymouth, eight years of age, was admitted under my care in St. George's Hospital, the 24th of December, 1800, on account of a fungous excrescence on the right side of the anterior part of the tongue, extending into the substance of the organ nearly to the middle line at the tip; the origin of the fungus existed at his birth, and had been removed by a ligature round its base; but when the ligature came away, the bleeding was considerable, and the excrescence gradually returned. Several attempts were made by caustics and the knife, but still it returned. This led me to remove the portion of the tongue on which the excrescence grew, in the following manner: On the 28th of December, the boy holding out the tongue, a crooked needle with a double ligature was passed through the substance of the tongue, some way beyond the tumor, and brought out on the lower surface. One ligature was tied behind the tumor, the other before it, including a segment of the tongue, which happened to be unusually thin in its substance. The operation gave little pain; he took thirty drops of laudanum, was put to bed, fell asleep, and next day was without pain. On the fifth day the slough came away. A second slough formed, which came away on the fifteenth day. The parts healed kindly, leaving slight fissure; and he continued perfectly well.

"Margaret Dalton, forty years of age, was admitted on the 25th of December, 1801, into St. George's Hospital, on account of a tumor, the size of a pea, on the right side of the tongue, near its edge. It had begun by a pimple, and increased without pain. It impeded her voice, and, when bruised by the teeth, bled freely. It was removed exactly in the same manner as in the last case: a considerable salivation ensued, which was much more troublesome than any other symptom, and continued till the slough came away. The ligature farthest from the tip separated on the sixth day, and the other on the seventh. In three days the wound healed, and she got well.

"A gentleman, forty-one years of age, consulted me for a tumor in the tongue, the size of a pea, which in my opinion would become cancerous. Mr. Cline coinciding in this opinion, I removed it, the 28th of December, 1802. The tongue was thick; the space included by the ligature more than an inch on the circumference of the tongue. The operation produced pain of the numbing kind; the part included by the ligatures became immediately dark coloured; a salivation ensued. The next day the pain and salivation increased, and the patient was unable to swallow; but on that following, got down broth and negus. On the sixth day the slough was loose, and the least motion of the tongue gave pain. The ligature on the right side had not deadened the parts in the centre, which accounted for the pain. On the seventh day the left ligature was brought away: another ligature was applied behind the right, which gave great pain; on the eighth the pain and salivation diminished; on the ninth the whole mass came away; on the thirteenth the tongue had so much recovered, that there was only a fissure half an inch in depth, not producing the slightest deformity." (P. 62.)

Sir Everard details other similar examples of cancerous diseases of the tongue.

In the testicle, cancer has two modes of making progress:

the one by becoming a scirrhus, exceedingly hard, and contaminating the cord, and then the lymphatic glands, as high as the loins. This is called a genuine cancer, and has been accurately described by several writers on surgery. There is, however, another disease, which, as it contaminates the neighbouring parts, and continues its course by means of the absorbent glands, may be considered, not improperly, as the same disease.

"In either of these local diseases, the parts are not capable of contamination of the neighbouring parts till after those have long continued to have lost their healthy state; and when the organ is extirpated early, the patients, I believe, always get well. But this is a rare occurrence, when the disease has completely established itself: and when it has, an operation, or any other violence committed upon the parts, by its irritation, accelerates the progress of the disease." (P. 71.)

Several cases of cancerous affections of the testicle are related: the following is rather unusual.

"A gentleman had an occasional swelling in one of his testicles, which subsided, but returned again, and in the end became permanent, extending someway along the cord. When it was in this state, it was extirpated; the skin that adhered to the testicle was freely removed, and the cord was included in the ligature, as high as the abdominal ring: all went on well. About nine months after the operation, a swelling under the upper part of the cicatrix was observed, which appeared, both to Mr. Pott and Mr. Hunter, to be a lympathic gland. This increased in size, and with others that appeared formed one mass: a degree of fluctuation was felt, ulceration took place, and a fungus shot out, which often bled, and he died.

"In this case the return was not in the line of absorption nor cord; and the cicatrix never gave way. To account for this return, the glands in the groin must have been affected by the diseased skin of the scrotum.

"This is an uncommon circumstance, and surgeons have not hitherto taken the risk of the disease being carried on from the scrotum into the account, when an operation is the question under consideration." (P. 71.)

Cancer in other parts of the body besides glands is frequently met with. In some cases it is the immediate consequence of accident; in others, it is the effect of the parts having long continued in a diseased state, to which they had appeared to be so accustomed as not to undergo further changes until the patients advanced in age, and then, from very slight causes, have received a new degree of excitement, and an excrescence of a cancerous nature has been formed. We have from these facts a confirmation of no cancerous disease ever being so in its origin, and we learn that, when parts have been long in a diseased state, we have no security against their not ultimately taking on a cancerous action; but, in all such cases, there must be a peculiarity of constitution existing previously to the parts undergoing such a change. Two cases are given in which a long period elapsed after the infliction of external injuries, before the parts assumed a cancerous disposition.

For half a century, Sir Everard has devoted much attention to the subject of cancer: his opportunities of watching the origin and progress of the disease, and the effects of various modes of treatment, have been extensive: but he "is sorry to add, that very little progress has been made either towards a cure or prevention of the disease taking place." In cases of a dubious nature, a mild, unirritating mode of treatment has often been employed with great advantage. The use of hemlock, internally and externally, is especially commended; and, in proof of its efficacy, it is stated that in some cases, when the medicine was left off, the symptoms became more violent, and when it was resumed, they again abated.

> "Also, when the powder of the leaves was prepared at the proper season, and the light entirely excluded while the drying of it was carried on, even in confirmed cancerous ulcers, benefit was derived in so great a degree, that the patient could ascertain, from increase of pain, some change had taken place in the application, when powder less accurately prepared was used as a substitute for the other. I have even prevented the operation, when the day had been fixed; and the patient lived for months under this palliative mode of treatment, without any progress of the tumor, and was carried off by epileptic fits. In many cases the swelling diminished, and in others remained stationary for years, and never afterwards made any advance: so that I am convinced that I had before been too much alarmed, and frequently came to an operation before it was required." (P. 95.)

Sir E. believes that the decoction of sarsaparilla has not the same powers of a restorative medicine, as in the form of powder, to which heat had not been applied. Mr. CLINE was of the same opinion. A case of ulceration of the palate and uvula is mentioned, in which the patient took, without avail, nineteen quarts of well-prepared strong decoction of sarsaparilla. Upon taking two drachms of the powdered root, freshly ground, three times a day, he recovered entirely in less than fourteen days. Since Sir E. has employed the sarsaparilla in substance, he has been more successful in reducing diseased glands, than by any other means. He has, in two cases of pulpy, enlarged testicle, after the disease had increased to a great degree, and resisted other modes of treatment, completely cured the disease by powder of sarsaparilla.

> "So much am I satisfied of the great superiority of the powers of sarsaparilla, when not weakened by exposure to heat, in restoring a constitution that has become diseased, and of enabling parts that had taken on the symptoms too frequently preceding cancer to recover themselves, that, in my own practice, I shall never resort to any other means, in cases of this kind, till it has been tried." (P. 98.)

We have now arrived at the termination of this "short tract," which Sir Everard informs us is "the last of his professional labours that will be submitted to the public." The brief preface in which this sentence is contained bespeaks the tranquil mind of a man who looks back upon many years that have been actively spent in endeavouring to alleviate human suffering. Sir Everard Home may fairly claim the merit of having always earnestly endeavoured to improve his profession. His physiological investigations alone would ensure him a high degree of reputation, even were we not indebted to him for many valuable contributions to the pathology and treatment of various diseases.

Sketches of the Medical Topography of the Mediterranean: comprising an Account of Gibraltar, the Ionian Islands, and Malta; to which is prefixed, a Sketch of a Plan for Memoirs on Medical Topography. By JOHN HENNEN, M.D. F.R.S.E. Inspector of Military Hospitals, Author of the "Principles of Military Surgery," &c. Edited by his Son, J. HENNEN, M.D., Mem. Royal Med. Society, Edinb. &c. —8vo. pp. 666. Underwoods, London, 1830.

WE have always had a high esteem for medical statistics: they show the result of practice on the largest scale. The veil that individual, and even national, prejudice is always ready to cast over medical truth, is rent asunder, and the most startling facts are presented in a form that leaves but little room for cavilling. Some of these facts are immediately pregnant with practical deductions; others require weighing in the balance of an ingenious reasoner, and others again seem barren: but they are not so, they are unwrought mines of ore. The most careless observer who looks over the London bills of mortality, and sees the deaths from small-pox diminished to one sixth or one seventh, feels that he can refute a hundred well or ill written pamphlets against vaccination. The gradual diminution of puerperal mortality may be elicited by an easy calculation. (MERRIMAN *on Difficult Parturition*, 4th Edit. p. 343.) Many facts, on the other hand, are difficult to be ascertained: they have scarcely been registered, or, if they have, they baffle every attempt to account for them, and are said to depend upon chance; i. e. on laws not yet within the domain of analysis. A simple row of figures clears away a whole forest of prejudices. You are a Malthusian, and imagine that celibacy is consistent with health and happiness; look over the records of the madhouse at Charenton, or the venereal hospitals of large cities. You are an alderman, with a splendid fortune, and a strong predilection for venison and champagne: of course, you see no connexion between gout and good living, and have even been told of several temperate arthritics. Examine Dr. Hennen's lists of sick, and count the number of gouty common soldiers: "one case of gout appears on the face of the return; a very rare, though not an unique military occurrence." (P. 229.) Or perhaps you belong to the numerous sect of Calomelarians, who hold that calomel is the appropriate remedy in all acute, and most chronic diseases: in fever, especially, you find that the panacea mercurialis performs wonders in nine cases out of ten, and the tenth was either an anomalous case, or did not come under your care soon enough. Now hear Dr. Hennen on this point:

> "I have not had access to the returns of the French and Russian army, but I have been made acquainted with the general result, which speaks strongly in favor of those medical philosophers, who assume that, on an average of years, mortality by fever is nearly the same, whatever the mode of treatment adopted may be. For I have every reason to suppose that, among the French troops, where the 'medicine expectante' was generally the order of the day, there occurred, upon the whole, no greater proportion of deaths than among the English, who met the fevers of the country with mercury and the lancet in all the activity, and all the orthodoxy, of the schools; and among the Russians, whose practice was as rude and barbarous, and their apathy, as to the event, as impenetrable as that of the Turkish neighbours, the results were similar." (P. 336.)

Such are some of the important problems which can be resolved only by the united observations of many physicians, labouring for a long series of years, and registering the fruits of their experience. Medical statistics, therefore, tend to improve the preventive part of medicine, by far the most useful one; and among works of this class, Dr. Hennen's deserves a very high place. It comprises an excellent "Sketch of a Plan for Memoirs on Military Topography," of which the outlines are ably filled up in an account of Gibraltar, Corfu, Cephalonia, Zante, Santa Maura, Ithaca, and Malta.

Gibraltar, so great when politically considered, and unfortunately so interesting in a medical point of view, cuts but a poor figure under the chain of the land measurer; many a country gentleman has a larger park. "The greatest length of the peninsula of Gibraltar, viz. from Forbes' barrier to the flag staff of Europa, is 4700 yards. The breadth from the new mole to the sea at the back of the rock, is 1600 yards. From Europa point, on the south of Gibraltar, to Cabrita point, on the Spanish side, (which two points form the mouth of the bay,) 10,915 yards." But this little rock is crowded with a motley rabble thirsting for gain, and hardly to be scared away by sun, disease, or the mandate of the governor.

"The population has for many years been excessive in Gibraltar; and it has been composed of a mixed multitude, consisting of natives, Spaniards, Minorquins, Genoese, and other Italians, Portuguese, French, English, Germans, Americans, Moors, Turks, &c. insomuch, that there are few commercial nations that have not some individuals belonging to them residing in the fortress. About the middle of the last century, (September 1754,) the population did not exceed 1810 persons, including men, women, boys, and girls; and with the garrison (including their women and children,) it only amounted to 6262 individuals. When the country barks arrived, the numbers increased, *pro tempore*, but the great tide of population did not set in until the commencement of the present century.

"In 1791, according to the earliest census of which I can find any account, the civil population amounted only to 2885; in 1801 it increased to 5339; in 1807, to 7501; in 1811, to 11,173; in 1813, to 12,423: in 1814, to 10,136; in 1816, to 11,401; and in 1817, to 10,737.

"The population of 1813 was diminished in the November of that year to 7370, by the voluntary removal or expulsion of many individuals, and by the ravages of the epidemic.

"The population of 1826 was estimated at 15,480 civilians, of whom 5953 were males, 4917 females, and 4610 children.

"Genoese and Minorquins make up the greater part of the foreigners included in this estimate: the former have been eminently successful in accumulating money, and for enterprise, both in trade and agriculture, have few equals any where. Of these two classes, very nearly all the fishermen of the garrison are composed; the principal part of the gardeners are Genoese.

"Jews of various nations are numerous, and are principally engaged in trade.

"The military population will be considered under another head.

It amounted, at the end of 1826, to 5090, of whom 3744 were males, 513 females, and 833 children. The total of civilians and military amounted to 20,570 souls." (P. 65.)

The poorer classes of society, Dr. Hennen says, are crowded together in apartments of a very bad description.

"To say that all are bad, would be exceeding the bounds of truth, or even of probability; but I am justified in asserting, that the majority are strikingly deficient in size, ventilation, and the means of cleanliness, and that some are utterly unfit for human habitations." (P. 68.)

"It would occupy a large volume, were I to go into minute details on this subject; I shall therefore merely give the summary of two or three reports I made in the spring of 1826, on the dwellings of the poor; and I may premise, that there are many infinitely worse off, in all respects, than the inhabitants of those places; the two first of which, it must be observed, are neither of them fifty yards from head-quarters, close to the public offices, on a surface almost perfectly level by nature, and with a fair exterior appearance. Were I to select specimens from the hill side, the details would be still more illustrative of the insalubrious nature of these confined abodes; and when it is stated that the thermometer stood no higher than fifty-six degrees when my examination was instituted, some estimate may be formed of what the inhabitants would suffer in the summer, in a temperature of eighty degrees and upwards.

"In the premises of a Jew, in 'Victualling-office lane,' I found, on a ground floor, seven occupied apartments, one store-room, and one necessary, built around an area of twenty-five feet by seventeen feet five inches: this area was encumbered with casks, baskets, and jars piled along the walls, and the upper part was curtailed by a projecting gallery, so that the space left for ventilation was reduced to eight feet five inches by five feet six.

"The entrance was fortunately wider than usual. Of the occupied apartments, two only had windows to the street; two had small, irregular slits in the upper part of the wall, which admitted air from without, and the others had neither air nor light, except what they derived from the area; cross ventilation was therefore impossible. On this ground-floor, twenty-four individuals (including children) lived. In one of the apartments next the necessary, with no other means of ventilation than a door, three women and one dog slept. The cubic contents of this wretched kennel were short of 200 feet. Above, the rooms were of a better description, but they contained twenty permanent inhabitants, besides a day school, in which, when I visited it, there were fifteen children.

"In another Jew's premises, in 'Governor's lane,' the sheds, which were built round an area originally twenty-eight feet by twenty-four, at the time of inspection were not overcrowded with population, but the cubic contents of the area were diminished nearly one half, by the erection of a new shed in its centre.

"In another Jew's lodging house, in the main street, near the court house, three adults slept in a wooden shed of six feet long, five broad, and six high; the necessary wall formed one side of this commodious dwelling! But even this is ample accommodation, compared to what Mr. Fraser reports in 1816. In the beginning of August he says, 'In the middle area of Boyd's buildings, confined and choked up by lumber, 189 persons were crowded together, some of them sleeping and cooking, in places called rooms, not larger than two ordinary sentry-boxes.'

"Some of the areas are crowded with water butts, old mats, oil jars, and lumber of all descriptions, affording a nest for filth, and a fruitful source of putrescent exhalations, independent of their seriously diminishing the cubic mass of air, the circulation of which is still further obstructed by lines and poles crossing the areas for the purpose of drying linen.

"In many tenements there are no necessaries; in many others, one small hole serves to receive the ordure of twenty families. In the centre of the area, there is, in the best class of houses, a grating, which communicates with a drain; in several, this grating and drain are altogether wanting.

"Upon the whole, although Gibraltar is improved to a degree scarcely to have been contemplated by those who knew it before his Excellency Sir George Don took the command, it is even now a town, in many parts of it confined and ill ventilated, in which innumerable obstacles to cleanliness exist, and with a population, filthy in themselves, and over-crowded, perhaps, beyond any other community in the world."* (P. 70.)

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* One would naturally conclude that the question, whether a well-known European city be clean, moderately clean, or abominably and dangerously filthy, could not be of very difficult solution. But of the medical controvertialist, it may be said, with truth, "*Nodum in scirpo quæris.*" We shall take our own great city as an example. No unprejudiced traveller, who has examined London, will, we should think, deny that it is one of the cleanest, if not the very cleanest, first-class city in the world. The streets are swept, the flagging brushed, the scavengers go round every day with their bells and carts. So it is also in Gibraltar. Every thing visible to the passing stranger bespeaks the most perfect *propreté*. Here the public health has been uninterruptedly excellent for the last hundred years; there, for the last thirteen. How could it have been otherwise, where there is such perfect cleanliness!

Let another traveller penetrate into the courts and alleys about St. Giles's: let him mount to the murky garrets, or descend to the damp cellars; let him observe the contrivances to which poverty and the want of space force the squalid, but prolific, inmates. Let him examine the underground city, the countless streams of sluggish filth that pour the deadly fermenting sordes, and even the dissolved remains of thousands of human beings, into the bosom of old Father Thames, from which the living million drinks; and if an epidemic should be then, or have been lately raging, he will exclaim, How could it have been otherwise, where there is so much filth and wretchedness? Thus it is with Gibraltar. Let any man enter that city by Waterport gate, or Bayside barrier, pass through the market, the Grand Casemate barracks, and on to Southport gate, by any route he pleases, to the splendid Almada and public gardens. Let him traverse the town in any other direction, (say from the Line wall to the Arengo palace, or the chief engineer's quarters,) and if he has ever seen a much cleaner town, in any country, we shall yield all claim to topographical accuracy. But let the stranger pry into the penetralia of the indigent, into the common outlets and receptacles of inevitable dirt, and he will meet with enough to offend his delicacy: not so much, however, as in many parts of this great metropolis, not half so much as in many cities in warm latitudes; in Lisbon, for example.

The thermometrical range is very moderate: during a period of ten years, the highest point was 89°, and the lowest 43°; but the variation in any one year was never so considerable as this even: thus, in 1824, the highest point was 85°, the lowest 45°: in 1825, the highest and lowest points were 88° and 59°. But then the medium heat during the months of June, July, August, and September, is 84°; a temperature which, when long continued, must be destructive to an English constitution. This naturally leads us to the too-celebrated fevers of Gibraltar.

In 1800, when Dr. Hennen first visited the place, 217 men died out of a force of about 4500. In the last four months of 1804, there died

Officers	54
Soldiers	864
Soldiers' wives and children ..	164
Civilians	4864
Total............	5946

In 1813, the epidemic destroyed 883 inhabitants, and 441 military, including officers. In 1814, it destroyed about 400 inhabitants. In 1825, a resident in the town died of yellow fever: in 1826, Dr. Hennen saw several cases of this disease. In 1828, he himself fell a victim to the fever which then ravaged Gibraltar. His son, the editor of the work, promises us, in a note at page 118, to give in the Appendix a history of that epidemic, from the pen of Mr. PETER WILSON, late of the civil hospital of Gibraltar: it is not, however, to be found there.

Among the other diseases, the most remarkable is the

If the poor could command comfort as to space, cleanliness, and accommodation, they would cease to be numbered with that class of our fellow creatures which is every where to be found, but unfortunately nowhere lodged in the neatest apartments. He who would find the causes of yellow fever in Gibraltar, will take you to the wretched habitation of the widow and her helpless brood, whom bitter poverty has driven to the vicinity of the public privy, or the sewer. But these poor creatures have enjoyed good health for years, and were not the first attacked by the late epidemic. He will take you to the *embouchure* of the drain which carries off the filth inseparable from congregated man. But, as Horace observes of the river which arrested the march of his peasant,

"At illa labitur et labetur, in omne volubilis ævum."

Let us conclude, then, that Gibraltar is as clean and as well policed as the most unswerving military discipline, and the best-directed municipal regulations, can make it; but that a Howard, or a Fry, or an endemic doctor, could find in it, as in every other city in the world, its portion of private poverty and filth.

Is it not a pity, we had almost said a shame, that the host of evidence on this important subject, brought before the Board of Commissioners in Gibraltar, in 1829, should not have been published by our government?—EDITOR.

elephantiasis, or Barbadoes leg: it is so common, especially among the lower classes of Jews, that, unless it is so severe as to impede motion, it is scarcely looked upon as a disease. Phthisis is common; cholera and dysentery are common among new comers. The former is often severe, but seldom fatal: the latter, if not properly treated, often turns out unfavorably. Errors in diet are the principal causes." (P. 120.)

The subdivision of property appears to be carried to an extraordinary extent. "The landed proprietors are estimated at about 500, nearly 300 of whom are Spaniards, Genoese, and other foreigners; there are about 100 Jews, and the other 100 are British." (P. 80.). It must require, we should imagine, one of Dr. Hodgkin's best microscopes to detect their estates.

Persons of English parentage, who have been born at Gibraltar, are called colloquially, but not contemptuously, "*Rock scorpions*:" yet they are not shunned nor despised; they eat, they drink, they dance with you; nay, they marry you, and the race of scorpions is continued *ad infinitum!*

Under the head of Corfu, Dr. Hennen enters pretty minutely into the diseases occurring among the garrison, (whose average strength for seven years was 2867,) and the method of treatment adopted. The total of all diseases admitted into the hospitals during seven years, was 15,191; among which were 5721 cases of fever, continued or intermittent. The mortality in fever of all descriptions was 170, or about one in $33\frac{2}{3}$. "That many of these fevers have proceeded from the effects of marsh miasmata, there can be no doubt; but that many were the product of unrestrained exposure to the mid-day sun, and of intoxication, is a fact which can only be questioned by those who are ignorant of the habits of British soldiers in all parts of the world." (P. 219.)

The next most important disease was dysentery: the admissions were

	Acute . . .	805
	Chronic . .	88
Of whom died,	Acute . . .	25, or 1 in $32\frac{1}{5}$,
	Chronic . .	6, or 1 in $14\frac{2}{3}$.

Cases of diarrhœa and pneumonia are very numerous; of phthisis pulmonalis, there are sixty-six cases; and sixty under the head "pulmonic." Of these, thirty-four were discharged, and twenty-six died.

Dr. Hennen's opinions on phthisis differ considerably from those of the dreadfully eminent practitioner who is now, a second time, awaiting his trial: he says, "As to their ultimate recovery, holding the opinions that I do upon the subject of tubercular phthisis, I look upon that as impossible. That the catarrhal and the apostematic species may occasionally be cured, I know; but the genuine tubercular phthisis I view more as a complicated combination of symptoms of two or more diseases, which infallibly announce the approach of death, than as a simple disease in itself; and, with the greatest respect for the humanity and talents of the numerous physicians who are in quest of cures for tubercular phthisis, I look upon the project as precisely tantamount to seeking a remedy against death itself." (P. 221.)]

Dr. Hennen shows that the three islands, Zante, Cephalonia, and Corfu, which are most malarious, and remarkable for remittents, have fewest pulmonary affections; yet they are not to be recommended in cases of confirmed phthisis.

No case of small-pox occurs during these seven years.

Syphilis has decreased, but non-syphilitic sores, and cachexia syphiloidea, have increased; the change being rather in the name than the disease, though something is to be attributed to the institution of a hospital for prostitutes. Twenty-eight cases of plague were treated in 1816, only three of which recovered.

The treatment of fever is nearly the same as in England, the patient being, of course, put under what Dr. Abercrombie calls "long and ruinous courses of mercury." The following caution may be useful in other places besides Corfu.

"Whatever remedies are fixed upon, it is the opinion of the best-informed officers, that one precaution should be observed in their administration, the omission of which has occasionally exposed our medical men to the sneers of the native practitioners, it is, to guard against a farrago of medicines, and to recollect that the stomach of the patient belongs to an organized and living being, at no time endowed with the passive properties of a chemical vessel, but in a state of disease, tremblingly alive to every impression, and, as I have heard it well remarked, at this period in particular, 'all nerve.'" (P. 232.)

In the severe forms of dysentery, bleeding is found to be the most powerful means of relief; and calomel with the neutral salts "is a favorite purgative with many." It would appear, from what Dr. Hennen says in the next page, that the worship of mercury is carried so far by some devotees, that "general mercurializations" of men in health have absolutely been perpetrated!

To us unmilitary critics, the quantity of flogging in so small a garrison (2867,) seems quite enormous. In the hospital returns, under the head *punitus*, we find in the seven years, from 1815 to 1821, the numbers to be 121, 114, 80, 117, 166, 114, 132, making a total of 844, and a yearly average of 120$\frac{4}{7}$: there is one death from this cause, in the year 1819. Were it not that nature, more kind than a court-martial, steps in, and, by shielding the sufferer in insensibility, prevents the infliction of half the threatened torture, the deaths would be far more numerous. It is to be wished that some army surgeon would favor the profession with a candid account of this frightful subject, though we fear it would not make him very popular at head-quarters.

We now take leave of Dr. Hennen's work, satisfied with having given our readers enough to excite their curiosity. His son has ably discharged the duty of an editor, and we hope to meet with him again as an original author. He enters the world under excellent auspices: it is pleasant to be the son of a man whose monument, erected by public subscription, bears the honourable testimony that it was raised to the memory of "a man who, in the day of general calamity, sacrificed all considerations of his own safety for the public weal." (P. 118.)

COLLECTANEA.

Floriferis ut apes in saltibus omnia libant,
Omnia nos, itidem, depascimur aurea dicta.

PATHOLOGY.

Case of Snake-bite, in which Cupping-glasses were successfully applied. By H. Clarke, Goruckpore. (*Trans. Med. and Phys. Soc. Calcutta*, vol. iv.)

September 18, 1828. I was called up this morning at three o'clock, to attend a person bitten by a snake. On going into the verandah where he lay, surrounded by several natives, who had accompanied him from the bazar, the symptoms which are well known to characterize this accident were at once observed; viz. stupor, insensibility, laborious respiration; pulse small, quick, and almost imperceptible; countenance indicative of great anxiety and distress; with constant endeavours to expel a frothy secretion from his mouth and fauces. He was utterly unable to articulate; but on being roused, evinced a slight degree of consciousness.

On examination, the wound by which the poison was injected, was discovered at the bend of the right arm, a little below the bifurcation of the superficial vein; extending horizontally, immediately underneath the cuticle, about half an inch in length. A slight elevation was thus produced, of a paler colour than the surrounding skin, and resembling very much the appearance of a splinter of fir. The adjacent parts, to the extent of two or three inches in every direction, were tense and painful, an abundant effusion of lymph being poured into the cellular tissue.

Having attempted to exhibit a stimulant, the Liquor Ammoniæ was the remedy preferred; I freely scarified the punctured wound, taking care to expose it fully without penetrating through the integuments. A ligature was applied a little above the elbow, and an attempt was made to give another dose of Ammonia: but, as in the former instance, without success, in consequence of the violent spasmodic action into which the muscles subservient to deglutition were instantaneously thrown. The sense of suffocation, and urgent distress, occassioned by the efforts to expel the frothy accumulation on any thing being taken into the mouth, induced me to refrain from administering any more internally, and resort without delay to the measure recommended with so much confidence by Dr. BARRY; a measure which, from its first being announced, I determined to have recourse to on the earliest occasion.

I proceeded, accordingly, to remove the atmospheric pressure from the wound, by means of the ordinary cupping apparatus; and with the exception of a few transient intermissions, retained the glass upon the surface for nearly an hour and a half; at the expiration of which, I had the delightful satisfaction to observe a manifest improvement in the symptoms. On first applying the exhausting syringe, apprehensions were entertained for the safety of the patient: his eyes had then become dim; he breathed convulsively, and a profuse perspiration extended over the body, with other unfavorable symptoms.

At five o'clock, two hours from the time of his arrival, and seven from the infliction of the wound, (as he was bitten at ten o'clock,) he became more composed and expectorated less froth; his pulse began to increase in volume, and the sense of suffocation was diminished.

From this period the dry cupping (for but a small quantity only of blood was extracted) was discontinued; and the Liq. Ammon. was again administered, although at first with considerable difficulty. At six o'clock he was enabled to stand, and shortly afterwards to walk a few paces. At ten o'clock, the sense of constriction in the throat had disappeared, but an extreme desire to sleep still prevailed; his tongue was covered with a thick white fur, and the breath emitted a peculiarly offensive odour. During the four preceding hours the Ammonia had been administered in doses of from gt. xxv. to xxx. every half or three quarters of an hour. The bandage at this period was not removed; and at his own request he was permitted to bathe. At three P.M. he could not articulate distinctly. A slight degree of irritation had been occasioned in the fauces by the Ammonia, but water could be swallowed without uneasiness.

At six P.M., twenty hours from the bite, and fifteen from his arrival at my bungalow, the drowsiness continued, accompanied by a heavy dull appearance about the eyes, with redness of the conjunctiva, resembling that of a person recovering from intoxication. Great indistinctness of vision prevailed; which, with pain in the vicinity of the puncture and other parts of the arm, arising from the ligature, (which had been removed a short time before,) were all that now remained as consequences of the bite. Cath. Ext. gr. vi.. Hyd. Submur. gr. v. were administered, and he was allowed to return to his house in the bazar.

19th. He returned this evening quite free from the vertigo and other sequelæ of the bite, having enjoyed a long and refreshing sleep.

The purgative medicine having proved inefficient, Pulv. Jalap. gr. xxx. was given with advantage.

Ingenious theorists will doubtless continue to speculate on questions like the present; I shall content myself however, on this occasion, with having adduced a fact, not in confirmation of any preconceived opinion, but as a simple statement arising in the ordinary course of practice. Dr. Barry, whose luminous views are before the professional public, has sufficiently illustrated the principle upon which the success of the measure depends. On this point, therefore, further observation would be here superfluous.

It is obvious that the vital functions were nearly destroyed by the operation of that portion of the virus which had been received into the system; and the conclusion is certainly legitimate, that the further process of absorption was suspended, and the life of the patient probably preserved, by the means employed. The superficial nature of the wound was doubtless a very favorable circumstance towards his recovery. The case is one, however, which offers the highest encouragement to a repetition of the practice, whenever and wherever a similar accident may occur.

Hernia of the Stomach, with enormous Enlargement of that Organ. This case was communicated to the Royal Academy of Medicine by M. YVAN. The subject of it was a soldier, who for some years had had a scrotal hernia, which could be easily reduced by taxis, but could not be kept up; it gradually increased in size, and a month previously to his death repeated vomiting took place, which could not be arrested although there was no strangulation, and the patient died. On examination, the abdominal ring was found to be enormously distended, measuring eighteen inches in circumference; the hernial sac contained the inferior third of the stomach, the greater omentum, the small intestines, and the large intestine, except the iliac portion of the colon, the cœcum, and the rectum. The stomach, situated parallel to the axis of the body, was of an enormous volume, and seemed divided by a circular depression into two portions; the one situated in the abdomen, the other in the hernial sac. The length of the great curvature of the stomach was three feet, that of the lesser curvature eighteen inches; its circumference at its largest part twenty inches, and it contained nearly eleven pints of fluid. Longitudinal and circular muscular fibres were observed on the surface of this organ. The stomach is in the Museum of the Academy.—*Arch. Generales.*

PRACTICAL MEDICINE.

Employment of Ice in Infantile Ophthalmia. M. RUST states, in his Magazin, vol. xxx., that the application of ice has been very serviceable in the beginning of this disease, particularly when the inflammation is principally seated in the eyelids, and they are much tumefied.

Use of Superacetate of Lead in Hydrophobia. A case is related by Mr. PEARSON, in the last volume of the Transactions of the Med. and Phys. Society of Calcutta, in which the symptoms of hydrophobia were much mitigated by large doses of the above medicine. Dr. FAYERMAN, of Norwich, tried this remedy with success in hydrophobia; and, from the evident amelioration of the symptoms in the case Mr. P. relates, he feels confident that he would have been equally fortunate, had not the patient been removed from his care, by the folly of friends, for several hours. Notwithstanding the lead was given in large doses, but slight and temporary symptoms of paralysis were produced, and no pain in the stomach or bowels existed.

Efficacy of Rhubarb in Hemorrhoids. From a paper by Dr. SAMUEL JACKSON, (*American Journal of Med. Sciences.*)

The difficulty of keeping the bowels in a regular state during the existence of piles, without great suffering to the patient, and even an aggravation of that painful disease, must often have been experienced by practitioners. Dr. Jackson proposes rhubarb for this purpose; and, as far as we know, he is correct in asserting that this particular use of that old remedy is entirely novel. After eighteen years' practice, and considerable experience in the treatment of piles, in which all the hitherto suggested laxatives were repeatedly tried, none with entire satisfaction, and some with manifest injury, it was found that rhubarb superseded every other. Dr. J. has for the last seven years prescribed it, not only for the purpose of relieving, but also of preventing the disease when threatened, and even of absolutely curing it in its inveterate stages.

In the management of piles, the physician has to keep the bowels loose, without drastic or acrimonious purgatives; to avoid the least tendency to costiveness, and also severe purging, or even a relaxing diarrhœa. To answer these indications, rhubarb, we are assured, is the best medicine. "A patient, who is hemorrhagic and costive, may chew a piece of the root every night, sometimes more, sometimes less frequently, but always so as to ensure one or more large stools every twenty-four hours. He ought to masticate it for at least ten or fifteen minutes, and then to swallow the whole mass with his saliva." The offensive taste of the medicine will soon be disregarded. Ten grains of the rhubarb thus chewed is more operative than five times the quantity taken in powder, and swallowed at once. It is not pretended, however, that rhubarb will cure every bad or inveterate case, or that it is not to be occasionally assisted by various means. The knife or ligature cannot always be dispensed with.

For the prevention and cure of hemorrhoids in puerperal women, rhubarb has been found of inestimable value. As a laxative during pregnancy, it is the best medicine that has been tried.

Dr. Jackson says, that in what he has written respecting the use of rhubarb, he has not the least fear of contradiction from the experience of others, provided they administer it with sufficient freedom. In some constitutions it may be necessary to modify its operation with a little ginger or carraway. Calomel, and its compounds, are very properly objected to in this disease. Most of our readers are probably not so well acquainted as we are with the many very useful practical papers that have issued from Dr. Jackson's pen. We are inclined to have much confidence in his suggestions, and we therefore recommend the above hints to the profession, with the confident expectation that they will find they are not misled by enthusiasm or fancy.

History of a Case of Stammering, successfully treated by the long-continued Use of Cathartics. By JOHN BOSTOCK, M.D. F.R.S. (*Med. Chir. Trans.* vol. xvi. part i.)

Impediments of speech are usually regarded as originating either in a physical defect of the organs which are exercised in the production of articulate sounds, or as proceeding from some cause more of a mental nature, as habit, imitation, or the like. The modes of treatment that have been proposed, as far as we are made acquainted with them, are accordingly adapted to one or other of these supposed causes, and consist, either in certain methods of managing the muscles that are concerned in speech, or in counteracting those circumstances which may be supposed to induce the habit, or the tendency to imitation. A case has fallen under my observation, which has led me to take a different view of the subject; and as the treatment has been, upon the whole, successful, I presume that a short account of it will be acceptable to the society.

A boy of a robust form and florid aspect, of a healthy constitution, and of more than ordinary activity both of mind and body, when between two and three years old, and after having acquired considerable readiness in speaking, was suddenly affected with so great a degree of stammering as to be almost incapable of uttering a single syllable. Two eminent physicians were consulted: they confessed their inability to propose any specific plan of treatment which might afford a prospect of success, but in consequence of a somewhat plethoric state of the child, they advised that a strong purgative should be given. The effect of the medicine appeared so favorable, that it was repeated three or four times, and each time with such decided benefit as to leave no doubt on this point in the minds either of the parents or the practitioners. The complaint, however, shortly recurred, was again attacked with the same remedy, and was again subdued. After this plan had been continued for some time, it was conceived that, in addition to the purgative system, the effect of which, although so salutary, was temporary, further advantage might be obtained by adopting a system of diet which should permanently reduce the plethoric habit, and obviate the necessity for the continual repetition of the purgatives. This was accordingly done, and was rigidly adhered to for several years. Animal food was totally abstained from, and even vegetables were taken in as sparing a quantity as was consistent with the support of the system. The effect of this regimen was sufficiently apparent in the altered aspect of the child, who became much less plump and florid, but still retained a due share of vigour and activity, and was fully adequate to enter into all the sports and exercises suited to his age. I had frequent opportunities of witnessing the result of this plan; and I may venture to assert, that it is impossible to have stronger evidence of the beneficial operation of any medical treatment, than is presented by the case in question.

By a steady adherence to this discipline for about eight years, the complaint was kept at bay; but whenever any relaxation in the diet took place, or when the purgatives were omitted or too long delayed, symptoms of the impediment immediately appeared. At length, when about twelve years of age, the tendency seemed so far subdued, that a relaxation of the restrictions was not followed by the usual unfavorable consequences, and the boy being then at a public school, it was not so easy to maintain the former discipline. For some time no bad effects ensued, but at length the complaint recurred, and was unusually obstinate, so as to require a long and severe course of purgatives, which, however, was finally successful.

During the last two years the tendency has occasionally manifested itself, but it has always been easily removed by a moderate use of purgatives, and by a temperate, although not a rigidly, abstemious diet. The boy, who is now in his fifteenth year, may be said to be free from the complaint. No one but those who are aware of the circumstances of the case, and were on the watch to detect even a slight defect, would notice any thing peculiar in his mode of speaking. He even possesses a considerable rapidity and volubility of enunciation; and as a proof of this I may state, that I was lately present at a juvenile exhibition, when he bore a conspicuous part in a comic dialogue, in which he displayed a complete command over the organs of speech. In this respect, he may be favorably contrasted with many of those individuals who have been under the care of the masters who profess to remove these impediments. It would be unjust not to admit, that they occasionally produce very beneficial effects on those committed to their care, but I think it may be asserted, that in all these cases, there is a certain peculiarity in the mode of speaking, which, although much preferable to decided stammering, indicates that the difficulty is rather evaded than obviated.

With respect to the purgatives employed in this case, it appeared to be of little importance which were used, provided the bowels were very completely evacuated. What was the most frequently employed was a full dose of calomel and jalap, succeeded by Epsom salts. Whenever the examination was made, it was found that the fæces were in a morbid state; and while the child was young, and the examination could be easily made, the necessity for continuing the medicine was judged of as much by the appearance of the fæces as by the state of the symptoms. It happened, on two or three occasions, that a degree of salivation was unintentionally excited, but it was not easy to determine whether this circumstance was productive of any advantage, as the relaxation of the bowels was contemporary and proportional.

How far we may be allowed to draw a general inference from a single case, I will not venture to decide; but I may be allowed to say, that a trial should be made of a plan of treatment which is productive of no inconvenience, which involves no expense, and does not interfere with education, or with the ordinary habits of life. It may be difficult to determine how far such a process should be recommended to adults. Much must depend upon age, constitution, temperament, &c., but I should suppose that few individuals would object to submit to a trial, although the hope of success may not be considerable.

As I propose this communication to be of a practical nature, I abstain from entering into any pathological observations on the nature and cause of the affection, further than to remark, that the complaint appears to consist essentially in a loss of power over certain voluntary muscles, and that, as the muscles themselves do not seem to be affected, it ought probably to be referred to the class of nervous diseases, and may be regarded as analogous to chorea, differing from it principally in its seat, and in its being confined to one set of muscles, while chorea affects a much greater number of parts, and produces a proportionally greater disturbance of the constitution and functions.

Small-Pox in India. [Extract of a Letter to Dr. GREGORY, from J. S. CHAPMAN, Esq. Acting Assistant-Surgeon, 11th Light Dragoons, dated Cawnpore, East Indies, May 4, 1830.]

Small-pox has been playing the deuce at this station. There appears to be no positive security against the disease, either by vaccination or small-pox inoculation; and I have seen several cases where the patients have caught small-pox twice, and have been each time very severely marked, and in two instances have died of the second attack of small-pox. I would recommend that all children vaccinated in India and sent to England for education, should, on their arrival there, be re-vaccinated, as certainly by far the greater number of our small-pox cases subsequent on vaccination have occurred in persons vaccinated in India only some twelve or fifteen years ago. I do not like the appearance of the vaccine vesicle I have seen here, and it does not pass through that course which it ought, I have taken down many interesting cases, and my observations are numerous on this head.

Gonorrhœa treated with Chlorate of Lime. Dr. EDWARD GRÆFE has pursued this practice in five cases with success. He saw the patients shortly after they were infected. The following was the form of the medicine employed: Chlorate of lime, ʒi., Almond emulsion ℥vij., Syrup ℥i.; a tablespoonful every three hours. Some irritation of the urethra, and a continual desire to make water, were at first produced. These symptoms soon subsided, and the disease was speedily cured.—*Journal für Chir.* vol. xiv., cah. 2.

Treatment of Pruritis of the Pudendum.—The torment often inflicted upon women by this affection, and the difficulty of relieving it, are well known to every practitioner. Dr. RUAN, after having tried opiates and numerous internal and external remedies, cured some cases rapidly and perfectly by balsam of copaiva, in doses of twenty-five drops, three times a day. In two instances in which it failed, a solution of borax, used as a lotion, was employed with success. In another case a permanent cure was obtained by sprinkling the parts, which were excoriated by constant scratching, with a powder composed of starch and lapis cataminaris.—*Hufeland's Journal*, Jan. 1830.

Dr. DEWEES (on Females, p. 161,) mentions cases in which the internal use of balsam of copaiva, and lotions of borax, cured this troublesome and frequently obstinate malady.—EDITOR.

SURGERY.

Case of Dislocation of the Humerus. By W. TWINING, Esq. (*Trans. Med. and Phys. Society, Calcutta,* vol. iv.)

The following case of dislocation of the shoulder-joint, which was restored after the bone had remained displaced three months and thirteen days, will, I trust, be satisfactory to the Medical Society, as an example of what may be reasonably expected in a stout and muscular subject, where a limb has been luxated with much violence, and remained not reduced for a great length of time.

Wm. Foss, aged forty-two, a robust and healthy sailor, was placed under my care, on the 25th December, 1826, with a dislocation of the left shoulder-joint. The head of the bone was downwards, resting on the anterior side of the inferior costa of the scapula; the hollow under the acromion was more distinct than is usually observed in recent luxations of the shoulder, as there was some wasting of the muscle from disuse and altered position. The elbow was carried out from the side, and could not be placed down against the ribs; indeed, any approach towards that position was so irksome that the man wore a cushion under the arm, to bear it out from the side. On examination, the head of the bone was found fixed to the scapula with exceeding firmness, and the limb, being capable of but limited motion, was of very little use.

On the 27th December, gradual extension was applied by the pullies, the patient being placed on an hospital couch in the sitting position, with the body somewhat inclined towards the right. The extension was made nearly at a right angle with the body, and in a direction a little upwards. When he began to complain of pain, gr. xx. of ipecacuan, and gr. ii. of tartar emetic were given in oz. ii. of water; and, on considerable nausea being evinced by frequent spitting, lb. ii. of blood was taken from a large orifice, which produced the requisite degree of general relaxation.

After the extension had been gradually and steadily increased for forty-five minutes, the head of the bone was found to have decidedly altered its position. Two crutches then were placed together, with a sheet wound round them, and carried under the axilla, so that two men could gradually raise the head of the bone, while at the same time I placed my right hand on the top of the shoulder, and pushed it back, taking hold of the wrist with my left hand to rotate the humerus. The head of the bone presently turned round the edge of the glenoid cavity, and bolted into its place, with a noise that was audible to the attendants, but it was more a grinding noise than a snap.

Some reason may be required for my not proceeding in the usual succession, of producing relaxation by bleeding and nauseating medicines, before the pullies were applied; but I was fearful that, if faintness and sickness were first excited, the patient would not permit the pullies to be applied.

The mode of raising the head of the bone appears to be eligible, after sufficient extension has been made, in cases where the limb has been long displaced; for it is my belief, that one great requisite in reducing old dislocations, (next to producing sufficient relaxation,) is to have command of abundant power, but to use it with the greatest steadiness and most merciful forbearance.

Case of Lithotomy, performed by a Native. By A. K. Lindsay, Esq. (*Ibid.*)

The operator in the following case is a native of Gwalior, a Kayuth of the Sutheya (or surgeon) caste, named Luchmun Singh. Before allowing him to proceed in the operation, I conceived it was proper to question him on the practice he had had, and how the operation was actually done. His own report, (perhaps not much to be depended on) made out that he had been very successful in about one hundred and fifty cases of lithotomy, having lost only fifteen or sixteen out of that number. But putting his own statement entirely aside, the description of the steps of the operation was so satisfactory, that I was at no loss to sanction and attend it. His method, as will be seen in the sequel, is that called "cutting on the gripe," or by the "Apparatus Minor:" the latter epithet was never better applied, for his whole stock of instruments consisted of an old lancet, a small folding knife, and a piece of unpolished iron about the size of a common uncut drawing pencil, having one end coarsely scoop-shaped. The patient was a boy about seven years old, son of a Goala residing in the bazar of the 3d Cavalry, who had suffered dreadfully, for some months, from unequivocal symptoms of stone in the bladder. The parties having met in the cavalry hospital, where Dr. Browne, of the 20th regiment, (the only other medical officer here at the time,) was present.

June 30th. Dr. B. and I having satisfied ourselves of the existence of a calculus of considerable size, by examination by the rectum, (we had no instrument which we could use as a sound in so young a subject,) without any preparation whatever, nay allowing the boy to void urine just before commencing, the operator proceeded as follows: having first gladly accepted a double-edged scalpel as a substitute for his own knife, but refusing forceps of any kind, the patient having been placed on his father's knees, who was seated on the edge of a cot, each hand was passed under the ham of the same side; the wrists were then firmly seized, and lightly held in such a position as to draw the knees of the patient as far upwards and outwards as possible; the operator kneeling before the boy, easily introduced the two fingers of the left hand into the anus, and with the right having roughly pressed above the pubes for a few seconds, he brought the calculus to press out the skin to the left of the perennial raphi near the anus; he then boldly cut down on the stone, (this incision running nearly in the same direction as in the lateral operation performed by us,) and attempted to scoop out the calculus very roughly with the bit of iron. He failed now, and at our suggestion slightly enlarged the wound, when he extracted with ease a calculus, of a flattened oval shape, larger than a pigeon's egg; the whole being over in less than two minutes. Had the wound been a little larger at first, the process would not have occupied half that time, from the drawing of the first drop of blood till the extraction. It is needless to state, the hukeem was totally ignorant of anatomy, having no rational idea of the parts to be divided, nor of those that would have been endangered by a slip of the knife. The principal objection to his method seems in the smallness of the original incision, by which considerable laceration must always take place, to an extent, of course, proportional to the size of the calculus. However, as no precaution was taken to empty the rectum, experience has probably taught these native lithotomists, that a lengthened incision is apt to wound the gut. On the whole, the dexterity displayed was very great, and the speedy extraction rather to be wondered at, considering the apparatus, or, more properly, the want of it. I should suppose the difficulty of operating after this fashion in an adult to be very considerable, from the depth of the pelvis preventing the pressure above the pubes materially assisting in getting the stone fairly within the grasp of the fingers in the rectum. For children with their shallow pelves, the method seems unexceptionable. From this case I should be disposed to give the operator credit for many others having been equally successful; and I should also be induced to subscribe cordially to the following opinion from Cooper's Surgical Dictionary, (Art. Lithotomy.) " The Apparatus Minor, as practised by Fabricius with the aid of a staff, is certainly so simple and safe an operation for children, that we must lament its utter neglected state." I confess I should, however, dispense with a staff, not being able to fancy what use it would be of should the calculus be made to protrude, as in the above case.

The calculus in this case weighed, when dry six hours after the operation, 217 grains. The after treatment was rather complicated. A great variety of poultices and ointments having been made use of, the best recommendation of which, in my opinion, was there not being one ingredient in any of them calculated to do any harm: the lithotomist, however, pretended to attach much importance to them.

July 7th. The eighth day after the operation, the boy was brought to pay me a visit. Wound looking well. Urine beginning to come by the natural passage; in short, doing well in every respect.

July 10th. Every thing continues unusually favorable.

On questioning the operator as to his other surgical acquirements, he did not pretend to any thing beyond Lithotomy, depressing the Cataract, extracting Nasal Polypi, and the treatment of wounds and sores. He said only a very few of his professional brethren ventured to practise extraction of urinary calculi. He also represented this disease to be far more frequent in Bundelcund, and farther to the westward, than is commonly supposed.

Singular Treatment of Tetanus. The Operation of Torolosi, (as in the South Sea Islands.)

Case I. " On passing a reed, first wetted with saliva, into the urethra, so as to occasion a considerable irritation and discharge of blood. If the general spasm is violent, they make a seton through this passage, by passing down a double thread looped over the end of the reed, and, when it is felt in the perineum, they cut down upon it, seize hold of the thread, and withdraw the reed, so that the ends of the thread hang from the orifice of the urethra, and the doubled part from the artificial opening in the perineum; the thread being occasionally drawn backwards and forwards, which excites very great pain and abundant discharge of blood. The operation Mr. Mariner has seen twice performed for Tetanus, arising, in both cases, from wounds in the foot. In these cases the spasm, but particularly the convulsive paroxysms, were exceedingly violent, extending to the whole body, neck, face, trunk, and extremities; but in neither case was the jaw permanently locked, though on every occasion it was violently closed for a few seconds.

"A native of the Figi Islands performed the operation twice; in either case the disease came on suddenly three or four days after the wound was received, which was from an arrow not barbed. The moment the symptoms became ardent, Torolosi was performed: in the short space of two hours one of them was greatly relieved, and the other in six or eight hours. The movement of the thread was regulated by the frequency of the spasms, which gave great relief. It was, however, thought prudent to allow the seton to remain until the fifth day, when, all the symptoms having disappeared, it was withdrawn. The effect of this operation was a considerable pain and tumefaction of the penis, but which gradually subsided in five or six days: the artificial openings in both cases healed spontaneously without any difficulty.

"These are the only two cases of tetanus in which this operation was performed, that Mr. Mariner can speak of with certainty, having been an eyewitness to them."

Case II. On the first instant, I had an oportunity of trying the effects of this operation in the person of a negro child, three years of age. He was admitted into the hospital of Plantation Uniform, the evening before, with marked symptoms of tetanus, which, on inquiry, could not be traced to any particular cause. The warm bath was ordered, and a common enema administered, which were productive of no good effect.

I saw him for the first time on the following morning. There was emprosthotonos, stiffness in the jaws, great rigidity of the abdominal muscles, distortion of the countenance, and a convulsive paroxysm every three minutes. I carefully examined the body, and could not perceive any recent wound or injury. I immediately performed Torolosi, by introducing an eyed probe into the urethra, until it was felt prominent in the perineum, when I cut down upon it, and affixed a common sewing thread. I then withdrew the probe, and moved the seton backwards and forwards, which created excruciating pain and a considerable discharge of blood. In less than two hours the symptoms began to abate, the spasms were less frequent, and not of such duration as before. Being obliged to pursue my avocations, I gave the overseer in attendance strict injunctions not to leave the patient, but to watch the frequency of the spasms, which alone were to regulate him in the movement of the seton. The next day I was most agreeably surprised to find my patient in every respect improved: the muscles were considerably relaxed, the countenance less distorted, and, on inquiry, I found the spasms had occurred but twice during the night. I ordered the child's strength to be supported with small doses of quinine, soup, and a couple of glasses of madeira, to be given in the course of the day. On the third and fourth day the patient continued in the same favorable state; and the symptoms having totally disappeared on the fifth, I withdrew the seton, and dressed the opening in the perineum with adhesive plaster, which has now perfectly healed, and the child restored to perfect health.

⁂ In our Journal for July 1829, p. 78, we adverted to the above curious mode of treatment. Dr. Brown, of Lexington, many years ago, proposed exciting strangury as a cure of traumatic tetanus, and he advanced some evidence of its efficacy.

We are indebted to Mr. Guthrie for the above interesting communication.—Ed.

Case of Recto-Vesical Lithotomy. By G. Waddell. M.D. *(Trans. Med. and Phys. Soc. Calcutta*, vol. iv.)

Although nearly ten years have elapsed since the vesical mode of extracting calculi from the bladder was first taught and published by M. Sanson, and notwithstanding the eminent success which has attended the operation, as improved by Professor Vacca Berlinghieri, of Pisa, and practised by that distinguished individual and his followers in Italy; I have been unable to find a single instance on record of its having been performed in our own country. In some of the schools there of anatomy and surgery, it has indeed been noticed, but only to be reprobated; and I observe with surprise, that no allusion is made to the operation by Sir A. Cooper, in his Lectures, lately published by Mr. Tyrrell.

The deplorable consequences which generally follow accidental wounds of the rectum from the lateral operation of lithotomy, is the assigned cause of the prejudice which exists in England against the recto-vesical method of performing it; but it does not appear to me that the cases are precisely parallel. If, in performing the lateral operation, the beak of the gorget should happen to slip from the groove of the staff on entering the bladder in the act of pushing it home, the direction being upwards and backward, the instrument would pass obliquely across, and enter the rectum above the neck of the bladder, and hence the wound in the gut be in a situation the most favorable for the formation of stercoraceous urinary fistula. On the other hand, in the recto-vesical operation of Vacca, which consists in dividing the urethra, prostate, and neck of the bladder without involving its lower portion, the evil is entirely avoided; "for the incision of the intestine is at least an inch lower than the neck of the bladder: the edges of the solution of continuity being in contact, are only separated for the passage of the urine, and the parietes of the intestine form a true valve, which opposes the entrance of fecal matters into the bladder." The only other objection against the operation, deserving attention, is that brought forward by Scarpa, and maintained as insuperable by Dupuytren, to wit, the impossibility of performing it without dividing the left seminal duct, and the liability of virtual castration being inflicted, when both happen to run parallel to, and in contact with each other in their passage to the urethra. To this a ready reply has been given by Vacca. "Of eighty patients," says he, "so operated on, not one suffered any diminution of their sexual powers."

The subject of the case was a boy nine years old. The existence of the stone having been clearly ascertained, by the introduction of the sound, and examination per anum, the recto-vesical operation for its extraction was proposed by Mr. Tweedie, and performed next day, in the following manner:

14th. The boy being placed near the end of a high table, in the position usual for the lateral operation, and the thighs held apart by the assistants, the operator introduced the fore and middle fingers of his left hand into the rectum, so as to embrace and fix the stone, and with a scalpel, having its cutting edge defended with cloth wrapped round it till within half an inch of its extremity, an incision about three quarters of an inch long was made into the shoulder and neck of the bladder, in the direction of the raphé; the scalpel being then withdrawn, the stone was brought away by a pair of common ball forceps. Several impediments occurred during the operation, such as the evacuation of the patient's bladder and bowels, the bearing down of the transverse folds of the rectum, and the recession of the calculus before the forceps; nevertheless the time occupied did not exceed five minutes, and not above half an ounce of blood was lost. As soon as the little fellow was released from the table, he had another stool, with some degree of straining; but all uneasiness quickly subsided, and before we left the house he seemed to feel as if nothing was the matter with him.

The stone is of a conoid form, four and a half inches in length, three and two tenths of an inch in circumference, at its greatest diameter, and weighs six drachms; its surface is rough and granular, and its appearance otherwise such as belongs to the ammoniaco-magnesian variety of those concretions.

15th. Continued easy all yesterday, had two stools and made water twice; urine mixed with fæces and tinged with blood; slept well; no pain or febrile irritability; passed about two ounces of feculent urine to-day with some difficulty; frets a good deal on account of the usual quantity of his food having been lessened.

24th. General health remains good; urine still feculent; slight discharge of a greenish matter from the urethra; is out of bed all day, walks about the house, and occasionally goes out to amuse himself.

27th. Has been feverish for the last three days, with pain in the umbilical region, and frequent calls to stool. The day before yesterday passed, by the urethra, a live lumbricus six inches long.

2d Sept. Urine bloody for some days, and passed with pain and straining: relieved by fomentations and opiates. Is much better this morning.

17th. In good health and spirits. Urine still at times mixed with feces, and its passage interrupted by flatus, discharged almost entirely by the urethra during the day; but at night, when asleep, is occasionally voided by the rectum.

20th May, 1826. Has been long perfectly well, and has gained much in flesh. The communication between the bladder and rectum appears to have closed about six weeks after the operation.

The above operation, it will be remarked, differs in two particulars from that described and recommended by Sanson: 1st, in the staff not having been employed; 2d, in that the fibres of the external sphincter ani were left undivided.

As regards the staff: from the form of the stone, the nipple-like extremity of which was felt impacted in the neck of the bladder, the use of that instrument was deemed superfluous, and in not dividing the sphincter, Mr. T. was determined by the size of the stone, which did not require this enlargement of the incision for its removal. It would perhaps have been better, however, if this last deviation from Sanson's method had not been made; for, by cutting through the sphincter, the resistance which this muscle naturally opposes to the action of the rectum and abdominal muscles *inter dejiciendum* would have been partly taken off, and thus the *free* access of the feces into the bladder obviated. Unfavorable as this circumstance was, in the present instance, to the healing of the wound, we have nevertheless seen that the cure within a reasonable period was complete; and the fact is the more worthy of notice that, so far as it goes, it may tend to allay the undue apprehensions entertained of recto-vesical fistulæ as a consequence of the operation.

As in all great surgical operations, the principal end in view is the preservation of life, it follows, that of two modes of performing an operation, that which is the least likely to endanger the patient's safety must be the best; and that the recto-vesical possesses, in this respect, the superiority over the lateral operation, there appears to be little room for doubt. According to Sir A. Cooper, the number of deaths in London from the lateral operation, taking all ages, is one to eight.[*] Dr. Yellowly, in his Observations on Prout's Estimate of Mortality from Lithotomy, states the number who die from the operation, throughout the whole kingdom, to be one in six and a half,[†] and Dr. Marcet even so high as one in five; which corresponds with the average of those who are cut off from this cause at the Hôtel Dieu, Paris. Nor, considering the situation, length, and depth of the wound, is it at all a matter of astonishment that so many should perish from the lateral operation. In the hands of the most dextrous surgeons, the patients occasionally die of uncontrollable hemorrhage: more frequently they expire a few hours after, from a sudden depression of the vital powers, or what has been called by Mr. Travers prostration without reaction; "a state characterised by a failure of the heart's motion, chilliness, torpor, and convulsions;"[‡] and in a large proportion of fatal cases the immediate cause of death is peritoneal inflammation. On the contrary, (*cæteris paribus*, that is, the prostate and bladder being in a healthy state, and the restorative powers of the constitution unimpaired,) there is abundant evidence to show that the improved recto-vesical operation is attended with little or no danger to life. The incision is of small extent, and almost superficial; gives but little pain to the patient; is performed with ease and celerity by the surgeon; and, from the increased separation at this point of the rami of the pubis, stones of a greater magnitude may be removed without having recourse to instruments for breaking them down; a practice, however, necessary, but too often productive of the worst consequences.

MISCELLANEOUS.

Chlorine an Antidote to Hydrocyanic Acid. MM. Persoz and Nonat have verified the favorable results which M. Simeon had obtained relative to the remedy, which chlorine affords against prussic acid. They operated upon three dogs, upon the eyes of which a drop of prussic acid had been placed. Dividing the symptoms in three periods, namely, 1, uneasiness, 2, tetanus, 3, interrupted respiration, they found that when chlorine was applied in the first period, the relief was immediate, the respiration became regular, vomitings and alvine discharges occurred, the animal gradually regained its strength, rose unsteadily, and, in about half an hour, was as lively as at first. Applied at the second period, the symptoms were arrested, but the restlessness continued awhile; and though respiration was less painful, the convulsive movements continued for ten minutes, then occurred vomitings, &c., as before, and, at the end of an hour, the animal was perfectly well. The two dogs thus treated, being tried next day with the same quantity of prussic acid, but without chlorine, died in a few minutes.

In the third case, all the effects of the prussic acid were produced before the chlorine was applied: the respiration had ceased for twenty-five seconds, and the animal was rapidly perishing; but the chlorine not only recalled it to life, but ultimately restored it to full vigour: the full effect only occurred, however, after some hours. Ten days after it was quite well, and the paralysis of the abdominal parts, which occurred in all, had in this case entirely disappeared.

After this, MM. Persoz and Nonat sought to ascertain whether the prussic acid, being absorbed into the vessels and tissues, the chlorine would follow and decompose

[*] Vide Lectures on Surgery, vol. ii. p. 245.

[†] See Annals of Philosophy, for May 1821.

[‡] See Travers on Constitutional Irritation, p. 135, 136.

it. Two dogs of equal strength were taken, the crural veins laid bare, and separated from the neighbouring parts, and especially the accompanying nervous fibres; then a drop of prussic acid was put upon each vessel. The effects were instantaneous; a few drops of chlorine (solution) were let fall on to one of the crural veins; the other animal was left alone. The first was as immediately recovered as it was injured; the second died directly. The first felt no inconvenience after some hours, except from the wound. Endeavours were then made to kill him, by putting prussic acid upon the eye and upon the crural vein of the opposite side; but the animal only felt temporary inconvenience and a few convulsive movements, and was very quickly at ease. Hence it appears that the chlorine administered beforehand is taken into the circulation, and is then an effectual remedy against prussic acid.

Trials made with the chlorides of lime and soda, in place of chlorine, showed that they possessed no corresponding powers, being quite inert as antagonists to the hydrocyanic acid. (*Journal of the Royal Institution of Great Britain.*)

INTELLIGENCE.

To the Editor of the London Medical and Physical Journal.

SIR: A few days ago I heard, with great surprise, that a letter signed JUSTUS, attacking the medical examinations at Cambridge, which appeared in your Journal for September 1828, has been attributed to me. I beg leave to contradict this report, as it is a simple falsehood: for it is almost superfluous to observe, that I had no hand in that letter, and was not privy to its publication. Hence it appears that I owe the invention of this silly calumny to some novice in his art; as it is entirely destitute of that faint resemblance to truth which more skilful slanderers commonly choose as the basis of their figments.

I remain, sir, your most obedient servant,

E. A. DOMEIER.

19, *Southampton street, Bloomsbury square;*
Nov. 22, 1830.

Claims of Drs. GOOCH *and* GRANVILLE *respecting the Settlement of the Quarantine Question.*

OUR readers are doubtless aware that, some years ago, Dr. MACLEAN broached some wild and fanciful speculations, for the purpose of proving that the plague was not a contagious disease, and that the quarantine laws were consequently perfectly unnecessary. Novel doctrines have always a charm, and even Dr. Maclean found some supporters. The rational part of the public, however, became alarmed, and the most serious mischief was apprehended from the proposed cessation of the quarantine regulations. The subject, of course, attracted the notice of the ministers of the day, and much valuable testimony was afforded by different individuals, which left no doubt of the instability of Dr. Maclean's opinions. Amongst the contagionists Dr. GRANVILLE held a conspicuous place, and there can be no doubt that his testimony had very great weight. At a *subsequent* period, Dr. GOOCH published an admirable article in the Quarterly Review upon the subject of contagion, in which he claims for himself almost the whole merit of having settled this very important question; and this claim has recently been repeated by his biographers. Dr. Granville has there-ore stept forward in his own cause, and, in a letter which he has addressed to the Editor of the Medical Gazette, he has, we think, very clearly shown that his evidence before the committee of the House of Commons, which was given *prior* to the publication of Dr. Gooch's paper, very materially influenced the government, and strongly tended to prove the imperative necessity for the rigid enforcement of the quarantine laws.

The following extract from Dr. Granville's letter shows that the merit of Dr. Gooch's paper is confined to the elegance and fluency of its style: "Dr. Gooch compiled his article in the Quarterly with my own arguments, my own references; my own quotations, and narrative of events; and, above all, with the principal facts contained in my letter on the Plague and Contagion, addressed to the President of the Board of Trade, in 1819."

BIBLIOGRAPHICAL NOTICES.

Two Memoirs read before l'Academie Royale des Sciences, at Paris, on the successful Inhalations of diluted Chlorine in the early Stages of Pulmonary Consumption, as a Remedy capable of prolonging Life, and of alleviating the distressing Symptoms in the more advanced Stages of that Complaint. With Cases illustrating the Method of administering the Gas, and showing its beneficial Effects. From the French of M. GANNAL. By W. H. POTTER, M.R.I. Operative Chemist. 8vo. pp. 93. Callow and Wilson, 1830.

A Treatise on Pulmonary Consumption; its Prevention and Remedy. By JOHN MURRAY, F.S.A. F.L.S. &c. 12mo. pp. 156. London, 1830.

HOWEVER slight may be the pretensions of any plan of treatment to effect the objects promised in these essays, we must not hastily pass it by with neglect. We are bound to catch at every hint that offers to assist us in the management of a disease, which generally, at least, resists all the various modes of practice that have hitherto been adopted. Of the merit of the remedies here suggested, we know nothing from personal experience.

Mr. POTTER says, that among the numerous publications which are daily presented to the medical world, "few or none contemplate the direct application of remedial agents to ulcerated lungs." This may be true as far as regards the present day; but if we look a few years back, we find that various remedies have been thus applied. Mascagni thought that, if ever we discovered an efficacious remedy for pulmonary consumption, it must be one that might be applied directly to the lungs by means of inspiration. Oxygen gas was first employed; but the experience of Cailleus, Chaptal, Bergius, Fourcroy, Beddoes, Portal, &c. show that it is but little entitled to our confidence: it has often been decidedly injurious. Withering, Percival, and Beddoes relate cases which appear to prove the advantage of inhaling carbonic acid gas. Beddoes also thought well of the inhalation of hydrogen gas. By this means he assures us he cured two consumptive cases. Baglivi advised his consumptive patients to follow the plough, for the purpose of inspiring the effluvia which emanated from the newly turned-up earth. The disorder is said to have been checked, and even cured, by inhaling the air of a cowhouse: this still continues a somewhat popular remedy. The vapours of sulphur have been often recommended, and we believe it is well ascertained that, of the number of persons who work in coal mines, in which the atmosphere is evidently sulphureous, few or none have been known to be attacked with phthisis. M. Beaumes informs us, that workmen employed in manufactories of sulphuric acid are not liable to this disease, and that those who had evinced a predisposition to it, and had exhibited some of its incipient symptoms, were restored to health by residing in them. Aromatic vapours of various kinds have been highly eulogised. Crichton and others believed that the inhalation of the vapour from burning pitch had been successful. We have tried this plan; but, so far from deriving any benefit from it, we found the cough and other symptoms were aggravated. All these remedies have now fallen into disuse; but whether they have been put to the test of sufficient experiment, may perhaps be doubted. Those who are disposed to make still further trials of such modes of practice, will consult Billard with advantage,* and also the Dict. des Sc. Medicales.† It appears that when success has resulted from the employment of any of the above remedies, it has been in cases of pulmonary consumption following catarrhal complaints, or those which were attended by a very abundant excretion of mucus. We must not omit to mention Dr. Myddleton's "Dissertation,"‡ the object of which is to show the advantages of inhaling various medical agents, in the form of impalpable powder, in pulmonary consumption; nor the essay of Dr. Dods, on the exemption of operative tanners from the same disease.§

M. Gannal's Memoirs are thought to prove, "in an incontestible manner," that chlorine gas, diluted with a large proportion of common air, and softened further by its combination with aqueons vapour, is a powerful therapeutic means of cicatrizing ulcers of the lungs, where they exist, and of preventing their formation when a predisposition is indicated; and, further, it is said, that where a speedy, if not a certain dissolution was to be expected, the effect of this agent has been to prolong life and palliate suffering, and "in some few instances has effected an absolute and permanent cure." These are large promises; we sincerely hope they may be realized.

M. Gannal first touches upon the effects of chlorine as an external application, and from its successful use in copious mucous discharges of the vagina, ill-conditioned ulcers, and gangrene of the limbs, he thinks analogy leads us to conclude "it should produce the like happy effects in the ulcers and increased mucous secretions, which for the most part constitute consumption." The force of this analogical reasoning does not strike us: it is, indeed, much too loose to require formal refutation. But let us proceed to the *facts* of the case: if they are satisfactory, we will forgive the weakness of the preliminary argument. In 1817, M. Gannal was attached to a manufactary of printed calicoes at St. Denis, and he observed that those workmen who happened to be affected with phthisical symptoms experienced relief, and quickly recovered their health, while exposed to the exhalations of the chlorine disengaged in the various processes. Laennec, in consequence of being informed of this circumstance, made some trials with the chlorine fumigations at La Charité, but "the results were not sufficiently decisive to occasion them to be continued." It appears that chlorine, as produced from its combination with oxides, is not of sufficient purity to warrant its application to the lungs of consumptive patients. To remedy this inconvenience, M. Gannal makes use of a solution of the pure gas in distilled water. The mode in which it is prepared is described, and a foot note instructs us that the necessary apparatus and the solution may be obtained at the translator's house. We would that this note had been omitted: it gives the appearance of an advertisement, rather than of a disinterested wish to increase our store of practical remedies. In the application of the chlorine fumigation, we are warned not to forget its great energy, and that there are scarcely any two persons who can bear exactly the same doses. "We must therefore carefully explore the state of the organ to be acted upon, and from thence deduce the proper quantity." In the same manner, also, must we be guided as to the *number* of fumigations during the twenty-four hours, which may generally be from six to eight. Patients far gone in the disease, and in a hopeless state, were selected as the first objects of experiment. In the first case, Dr. Laennec (nephew to the professor,) announced the existence of pulmonary tubercles: the symptoms are said to have been diminished by the fumigation of chlorine, and the patient's life prolonged. In the second case, reported by Dr. Honlet, the same results were derived. In the third case, the cough and purulent expectoration were diminished, and the patient recovered strength, "and every thing showed fair for a speedy restoration."

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* Remarques et Observations sur l'Usage des Fumigations dans la Phthisie Pulmonaire. Mem. de l'Acad. de Chir. t. v. p. 557.

† Tom. xlii. p. 149.

‡ London Med. and Phys. Journal, May 1829.

§ London Med. Gazette, March 21, 1829.

The only symptom which induced M. G. to modify the general application of the chlorine, was irritation of the trachea, which arises, in some subjects, after each fumigation, particularly in cases of a morbid state of the larynx. The quantity of the gas must then be reduced, or its employment suspended altogether, if the irritation continues several days. It is proper to state that the perfect purity of the gas is deemed of the utmost moment; it should contain no admixture with the muriatic acid gas.

In the second memoir additional cases are given, and it appears that in them well-marked symptoms of confirmed phthisis were palliated by the remedy recommended.

In addition to the various testimonies adduced by M. Gannal, the translator is authorised to state that Mr. Wade has made use of chlorine in some few cases of phthisis, and has generally found that its employment has diminished the excessive perspiration, and, by renovating the digestive organs, has improved the general health.

The use of chlorine fumigations in pulmonary consumption has excited the attention of many physicians on the continent, and various opinions have been entertained of its merit. If the facts in its favor are fairly stated, which we have no right to doubt, it appears that it never does harm, if it be properly employed, and that it not unfrequently alleviates some of the most distressing symptoms. We are too much in want of additional means in the treatment of pulmonary consumption, to treat any remedy that is proposed with carelessness or contempt. The chlorine fumigations, therefore, should have a dispassionate trial, and every experiment that is made should be communicated to the profession; for, until more satisfactory information is communicated upon the subject, positive conclusions would be premature. Sir Charles Scudamore is now trying the effects of chlorine and iodine in consumptive cases, and has announced a work upon the subject.

Mr. Murray's work "would have appeared some years ago, but it has been postponed from time to time, in the hope of finding some substitute for chlorine, that might be equally effective, and not so irritating to the lungs;" and we are informed that "in the vapour of nitric acid, or red fuming nitrous acid, he has discovered what he was in quest of." "This vapour, equally effective with chlorine, possesses a very superior advantage over it, in that it can, (as we have in numerous cases of diseased lungs proved,) be breathed, mixed with atmospheric air, without the slightest irritation being produced on the pulmonary apparatus." In the administration both of chlorine and nitrous acid gas, much caution is required. Metallic and gilded articles of furniture, and coloured hangings, must be removed. A room, indeed, should be emptied of its furniture, and devoted exclusively to the purpose. Mr. Murray employs these remedies in the following manner: "If a portion of peroxyde (or black oxyde) of manganese be put into a small basin or teacup, and muriatic acid (or spirit of salt) poured over it, and the ingredients, mixed together, be suffered to float in a vessel of tepid water, chlorine gas will be disengaged, and impregnate the atmosphere: the proportions of the peroxide and muriatic acid must be according to the size of the apartment, and the strength of the patient to bear it: thus it may be from a quarter to an ounce of the former, and two or more fluid ounces of the latter. The patient must enter this atmosphere several times a day, and each time remain a short period, so long as not to be painful or oppressive, and the quantity of impregnation must be insufficient to excite cough or irritate the lungs: two or three minutes at a time, and repeated five or six times a-day, will be found quite sufficient. The physical strength and progress of the disease, in fact, circumstances and feelings, must determine these points." "We have been accustomed to administer nitrous acid gas in pulmonary consumption in the following simple manner: a small quantity, to the amount of one or two ounces of red fuming nitrous acid is poured into a wide tumbler glass, and the patient sitting in the current of the vapour, in the act of escape and diffusion into the atmosphere, at about eighteen inches, more or less apart from the glass, according to circumstances, the vapour will soon be felt, and at no distant interval an evident amendment will attest its efficacy, and proclaim its value. The patient may remain two or three minutes at once, and repeat the experiment four or five times a-day, as may be convenient and agreeable. At the close a bladder may be put over the glass, which will retain the vapour and preserve it for further use, since the same supply may be used several times."

It may be proper to add, that Mr. Murray claims the merit of having first suggested the idea of curing phthisis by means of aerial chlorine. We cannot think that he has shown his judgment in attempting to write "a treatise" on the disease. Had he confined himself to the relation of facts, illustrative of the efficacy of the remedies he recommends, and of the mode of preparing and applying them, he need not have apprehended the accusation of meddling with a question "*exotic to his sphere or pale!*" (Pref. p. vii.) Mr. Murray's zeal is laudable; his passion for fine phrases very laughable; his imagination appears to be constantly on the rack for something out of the common way in his mode of expression. Thus: "Those who have entered on the theatre of life, adorned with all the *garniture* of promise, and unfolding pleasing images for futurity, are the selected victims of this pitiless invader."—"Consumption, like the vampire, while it drinks up the vital stream, fans with its wing the hopes that flutter in the hectic breast," &c. This poetical prose *may* be very pretty, but it is certainly quite out of place in a medical essay.

A Practical Treatise on the Anti-Asthmatic Properties of the Bladder-podded Lobelia, (Lobelia Inflata, Linn.) &c. To which is added, an Account of the Chirayita Herb, lately introduced as a Remedy for Nervous and Gouty Indigestion, &c. By RICHARD REECE, M.D. &c. Ridgway, London.

THE lobelia inflata has been highly extolled as a remedy in asthma by the most eminent physicians in America and Glasgow, and from several trials we have ourselves made of it, we are convinced it well deserves the confidence of practitioners. In the little essay before us, Dr. REECE states the results of his own experience, which are also decidedly in favor of the utility of the lobelia inflata in asthmatic cases, and in "winter or chronic cough." The remarks which Dr. R. offers respecting the pathology of asthma appear to us acute and accurate.

"Some practitioners suppose, that the species of asthma noticed by authors differ so essentially, that no single remedy can be applicable to all of them. Long experience has satisfied us, that asthma is always dependent on a preternatural excitability of the eighth pair of nerves, termed the par vagum, (the ramifications of which are extensively distributed, viz. to the larynx, gullet, lungs, the diaphragm, stomach, &c.) and that the varieties noticed by different writers are mere modifications by temperament, habits, customs, or some nervous peculiarity, technically termed idiosyncrasy. The preternatural excitability or sensibility of the par vagum (often, if not always hereditary) occurs as frequently in the plethoric as in the leucophlegmatic habit, and hence the malady frequently requires different constitutional management; but when the state of the system is corrected, the same remedy will be proper to reduce the morbid excitement of the par vagum, and thereby remove the spasmodic constriction of the muscles of the glottis, air vessels, respiratory muscles, &c. constituting the asthmatic paroxysm.

"From the extensive distribution of the branches of the par vagum, the local exciting causes of asthma are numerous. Inhalation of a noxious air, as the carbonic acid gas from burning coke or charcoal, a frosty humid, or foggy atmosphere, or an article capable of mechanically or chemically irritating the fauces, &c. as rough food, particular spices, &c. especially when either comes in contact with the glottis, is a common exciting cause of a paroxysm. Irritation in the lungs, the stomach, the liver, uterus, or in any part to which branches of the par vagum may extend, or with which the stomach may sympathise, may act as an exciting cause. Incipient organic mischief, either in the liver, spleen, pylorus, duodenum, or uterus, often keeps up the preternatural excitement of the par vagum; but when the disease advances to suppuration or ulceration, it is common for a determination of nervous energy and blood to take place to it, and to occasion such a diversion in favor of the disordered par vagum that the patient loses all his asthmatic feelings. The morbid sensibility of the par vagum often occurs in gouty subjects, and it is common for a violent asthmatic paroxysm, attended with considerable disturbance of the brain and whole nervous system, to precede a fit of gout, and for the asthmatic affection gradually to decrease in proportion as the gouty inflammation in an extremity advances. The par vagum, (which is always in a state of alarm, in very nervous asthmatics, and all asthmatics are more or less nervous,) is often disturbed, through the medium of the nervous system by atmospherical changes, or mental emotion, so as to occasion an asthmatic fit. If, therefore, asthma be distinguished according to its exciting cause, the species would be nearly as numerous as all the primary maladies to which man is liable. Such distinctions would tend to little practical utility, for the predisposing cause in all is the same, viz. a preternaturally excitable condition of the par vagum, without which, the exciting causes we have noticed would not produce any of the phenomena of asthma.

"The only popular division of asthma with which we are acquainted, is into the dry (when attended with no expectoration) and humid (when attended with expectoration). The former occurs in the feverish or plethoric habit, and the latter in the leucophlegmatic. There is a state of system which favors the operation of all specific remedies, or the topical treatment of a local malady. In cases of asthma, a plethoric state of the blood-vessels, or a state of health above par, will keep up a degree of preternatural excitement of the par vagum, that even the slight change which takes place in the air on the approach of night, will be capable of bringing on an asthmatic paroxysm, and such a state of system will also prevent the specific action of the remedy. In such case, depletion by abstraction of blood, an active purgative, and a soothing stomachic medicine, with a low diet, will be necessary to ensure the specific operation of either of the preparations of the Lobelia Inflata. If, on the contrary, the vital powers be considerably reduced, the stomach disordered, the bowels irregular, the secretion of urine diseased and deficient in quantity, the use of a tonic and diuretic medicine for two or three days, with attention to the intestinal canal, will be necessary, in order to prepare the system for the exhibition of the ethereal tincture, or the oxysyrup of the Lobelia Inflata."

Dr. Reece is of opinion that, for asthmatics, the oxysyrup of the lobelia inflata, or of the squill (made with the sugar of whey), is a great improvement on the oxymels.

The Chirayita, or Cherrattah herb, has long been highly esteemed by the natives of Bengal as a stomachic, deobstruent, and antiscrofulous medicine; and for the last fifty years by the European medical officers in the East Indies. It has only lately, however, been introduced into practice in this country.

"It is not only a most valuable stomachic or tonic medicine, but it evidently deterges the abdominal viscera, and on this account its beneficial effects are generally permanent. It corrects the secretion of bile, as is evident by the healthy bilious appearance of the feces, and prevents that accumulation of feces in the colon, which so frequently gives rise to a variety of distressing affections, particularly headach, giddiness, indigestion, flatulence, piles, glandular obstruction, &c. On the liver, &c. it acts more effectually, by removing obstruction, and the cause of sluggishness or vitiated bile, than blue pill, calomel, or any other preparation of mercury, and is entirely exempt from the serious objections to the employment of the bluepill or any other mercurial preparations in nervous subjects. The Chirayita herb, in fact, possesses the very important advantage over all other stomachic medicines, of purging or cleansing the liver and the other viscera, and at the same time strengthens the stomach; and, by producing healthy chyle, corrects the whole mass of blood."

Of the latter remedy we have no experience, but we know the merits of the Lobelia Inflata are not overrated by Dr. Reece. His observations upon both these medicines, as well as the opinions he offers upon asthmatic complaints in general, deserve the attention of the profession and public.

LITERARY INTELLIGENCE.

An Encyclopædia of Practical Medicine is preparing for publication. It will comprise treatises on the Nature and Treatment of Diseases, including Pathological Anatomy, and also some practical parts of Materia Medica and Medical Jurisprudence. It is to be published in octavo parts, with double columns, to form a volume of 1800 pages, when complete. Many able contributors are mentioned to this work: Drs. Carswell (Paris), Conolly, D. D. Davis, James Clark, Darwall (Birmingham), Forbes (Chichester), G. Gregory, Marshall Hall, Roget, A. T. Thomson, A. Tweedie, Pritchard (Bristol), &c. Such a work has long been wanting in this country, and we cannot doubt that the one now announced will be highly creditable to our medical literature, and very valuable as a book of reference to both students and practitioners.

MONTHLY LIST OF MEDICAL BOOKS.

Some Observations on Fumigating and other Baths; with a Summary of Ninety-two important Cases, treated at the Establishment, 40, Great Marlborough street, and with Remarks thereon. By **Jonathan Green**, Surgeon, &c.—London, 1830.

The evidence Mr. Green offers in proof of the beneficial effects of his baths, in cases of rheumatism, cutaneous affections, &c. is very satisfactory.

Cases illustrative of the Efficacy of various Medicines administered by Inhalation in Pulmonary Consumption; in certain Morbid States of the Trachea and Bronchial Tubes, attended with distressing Cough, and in Asthma. By Sir **Charles Scudamore**, M.D. F.R.S. &c.—8vo. pp. 113. Longman, London, 1830.

The Dublin Hospital Reports and Communications in Medicine and Surgery. Vol. V.—8vo. pp. 631. Plates. Dublin: Hodges and Smith, 1830.

METEOROLOGICAL JOURNAL,

By Messrs. **Harris** and Co. Mathematical Instrument Makers, 50, High Holborn.

	Moon.	Rain gauge.	Thermom.			Barometer.		DeLuc's Hygrom.		Winds.		Atmospheric Variations.		
			9 a.m.	max.	min.	9 a.m.	10 p.m.	9	10 p.m.	9 a.m.	10 p.m.	9 a.m.	2 p.m.	10 p.m.
Oct.														
20			61	63	56	29.88	29.96	62	62	S	SSW	Fine	Fine	Fine
21			60	66	54	30.04	30.11	61	61	SSW	S W	——	——	——
22			59	62	55	.11	.11	62	62	SW	WSW	——	——	Sho'ry
23			57	60	52	.15	.20	60	58	N	N	——	——	Fine
24	☽		55	58	54	.23	.18	56	57	N	WNW	Foggy	Foggy	Fine
25			56	62	47	29.88	29.73	60	61	WSW	WSW	Rain	Rain	Clou
26		.23	50	54	42	.84	30.14	61	61	N	N	Fine	Fine	Fin
27			48	55	47	30.18	.04	62	62	W	W	——	——	Cloudy
28			54	58	48	29.75	29.63	62	60	WNW	W	Cloudy	——	Cloudy
29			50	54	41	.53	.61	60	56	WNW	NW	Fine	——	Fine
30	○		45	52	46	.86	.92	55	55	NW	WNW	——	——	——
31			50	57	42	.93	.96	57	57	NW	WNW	Cloudy	Cloudy	——
Nov.														
1			48	53	44	.98	.98	58	60	W	W	Fine	Fine	——
2			49	53	48	.98	.91	60	61	W	SW	——	——	Cloudy
3			51	55	50	.86	.62	62	63	SSW	SW	Cloudy	Cloudy	Cloudy
4			51	53	48	.66	.72	62	61	SW	WSW	Fine	Fine	Fine
5			52	55	54	.80	.62	60	60	SW	S	——	——	Cloudy
6			56	59	48	.40	.10	60	60	SSW	S	——	Cloudy	Rain
7	☾	.21	50	54	40	.40	.23	60	60	SW	WSW	Rain	Rain	Fine
8		.09	43	45	37	.52	.64	60	60	W	W	Fine	Fine	Foggy
9			42	46	44	.74	.74	58	58	W	SSW	Foggy	——	Fine
10			52	56	46	.61	.54	60	60	SW	SSW	Fine	——	——
11			49	52	41	.50	.47	59	59	SW	WSW	Rain	——	——
12		.22	43	46	44	.86	.91	60	60	WSW	SW	Fine	——	——
13			45	47	42	.45	.40	59	59	S	S	——	——	Sho'ry
14			46	51	43	.40	.43	61	61	SW	SW	Cloudy	Cloudy	Rain
15	●	.54	50	53	50	.47	.51	63	62	SW	SSW	Cloudy	Cloudy	Cloudy
16			53	53	43	.06	.02	62	63	SSW	W	Rain	Rain	Cloudy
17		.18	46	49	41	.33	.45	63	62	SW	SW	Fine	Cloudy	Fine
18			43	44	37	.62	.82	61	62	W	WNW	Foggy	Cloudy	Rain
19		.06	38	44	39	30.04	30.04	62	61	NW	SW	——	Fine	Fine

The quantity of Rain fallen in October was 1 inch and 4-100ths.

Communications received from Dr. and Mr. D. **Griffin**, Dr. **Barry**, **Sanitarius**, *&c.*

ERRATA *in our last Number.*—Page 385, note, for "Vitalba," read "Vilalba." P. 390, line 2, for "the other nine members," read "the other eleven members."

With reference to the note at the foot of page 390, in our last Number, Dr Barry requests us to state, that, from a memorandum he has since found amongst his Gibraltar papers, he has reason to believe that the hospital of the 73d regiment was not established on Windmill hill until after the period alluded to in the note.

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